Ampelis
garrulus

SBr 97.41.9 (15)
v. 16

(1883-84)

But the winter will be chiefly remembered by our naturalists as the season when the Bohemian Waxwing was first seen by the rising generation of observers; when several individuals of the Brown Creeper, the Thistle Bird, the Purple Finch, and the Cedar Bird were taken near St. John in January and February, and when large numbers of Crows and Robins spent the entire season in the Province. Chamberlain, Auk I July 1884 p. 234.

Birds of Toronto, Canada.
by James H. Fleming.
Part II, Land Birds.
Auk, XXIV, 2 Jan., 1907. p. 82.

231. **Ampelis garrulus.** BOHEMIAN WAXWING.— An irregular winter resident, rare. A flight occurred in 1895 when several small flocks spent a month or more in the residential parts of the city. Mr. Geo. E. Atkinson recorded their arrival on February 3; they were absent from the 13th to the 22d, and were last seen on March 6; Mr. Nash took one at East Toronto on the 22d.

Winter Birds of Webster, N. H. by Falco.

We were induced on the authority of another person to include the Northern Wax-wing, (*Ampelis garrulus*), in our list published in the *Forest and Stream*, but think it somewhat doubtful, probably the Common Waxwing was mistaken for this species, as the observer was not scientific.

O. & O. X. Jan. 1885. p. 14

Brief Notes.

A flock of Bohemian Waxwings visited us on March 12. A. M. Farmer, Amoskeag, N. H.

O. & O. Vol. 17, April 1892 p. 64

The Bohemian Waxwing in Vermont in Summer.— It has been my good fortune to spend the time from August 7 to the 20th at Willoughby Lake this summer. Lake Willoughby, in the town of Westmore in northern Vermont, about 25 miles from the Canadian border, is a well known region to the botanists and ornithologists of New England. On the sandy beach at the south end of the lake, between Mt. Pisgah and Mt. Hor there are many birches; some are bare, dead trees, while other are well covered with leaves.

While at the beach August 18 a few Cedar Birds were about the trees, but on a dead tree, a Black-throated Green Warbler was looking over the branches, when what I first thought was a Cedar Bird flew to the same tree, and remained there a long time. As I looked at it, it seemed larger than a Cedar Bird; then I saw some white wing bars plainly. I watched it for twenty minutes or more, and when I left the beach it was still there.

Since then I have had a dead Cedar Bird in my hand to examine, and this bird at Willoughby was certainly larger, and the white wing bars (3 I think) were plainly to be seen. There was plenty of time to look at the bird, for it remained just where it perched at first as long as I watched it, and there were no leaves or branches to hide it.

I reported this incident to Dr. Walter Faxon of Cambridge, who is familiar with this region. I take the liberty to quote his reply: "I do not doubt that the bird you saw was the Bohemian Waxwing. The size and particularly the white wing-bars would distinguish it from the Cedar Bird." — ANNA E. COBB, *Providence, R. I.*

Auk 29. Jan. 1912. p. 104.

Ampelis garrulus

In Mass.

Williamstown, Mass.

In the collection of the Nat. Hist. Soc. of Williamstown College I have just seen a Bohemian Waxwing marked as follows: "Male, Williamstown, Mass."

Some Additions to the List of Birds of Bristol County, Mass.
by C. L. Phillips. Dighton, Mass.

Bohemian Waxwing (*Ampelis garrulus*). I saw two of these beautiful birds December 26, 1885. They were perched in a juniper in an old pasture. Not having my gun I did not secure them.

February 7th a fine ♂ Bohemian Waxwing was shot, and so far as I can ascertain it is the first ever captured here.

Cape Cod --- F. L. Small.

O&O, XVI, March, 1891, p. 42

In the March number I stated on another person's statement that a ♂ Bohemian Waxwing had been shot here. It proved to be a Cedarbird.

Provincetown, Mass. Fred. L. Small.

O&O, XVI, April, 1891, p. 64.

Ampelis garrulus.

R. A. Gilbert called, Dec. 4, 1901, on Mr. Paul Sidney, Columbia St., Maplewood, Malden, and saw a Bohemian Waxwing which Mr. Sidney says was taken in Hudson Mass. about 20 yrs. ago. Mr. Sidney said that he skinned, dried & mounted the bird.

Rare Birds at Cold Spring, N. Y.

6. **Ampelis garrulus**, Gmel. Dr. Frederic Lente, of Cold Spring, showed me a beautiful Waxwing of this species which was shot near his residence, several winters before.

His son, Wm. K. Lente, informed me that he shot at several Bohemian Waxwings that sat in an evergreen tree close to their house. This occurred several years after the first specimen was taken. — EDGAR A. MEARNS, *Highland Falls, New York.*

Bull. N.O.C. 3, Jan., 1878. p. 46.

THE BOHEMIAN WAXWING IN NORTHERN NEW YORK. — I am indebted to Mr. George A. Davis for information regarding the occurrence of these beautiful birds in Mexico, Oswego Co., N Y.

He first discovered them January 31, 1880, about a mile from the lake shore, in a section of country where the mountain-ash was abundant. A flock of some two hundred birds were feeding on the berries, in company with the Cedar Birds, and he captured a number. On February 2, he again visited the same locality, and shot twenty-three specimens; this time no Cedar Birds were seen. After feeding, the flock would retire to a deep swamp, where they would remain until again hungry, when they would return until the berries were nearly exhausted.

Mr. Davis has never before seen the Waxwings in flocks in his locality, but shot a single specimen in 1876. In all, he shot seventy specimens; and out of some twenty-five which I examined, but few were in full adult plumage. Mr. Boardman writes me, that about a dozen birds in immature plumage were taken near St. Stephens, N. B., early in December, and that he has heard of them occurring all the way from Nova Scotia to Oregon, though I judge not in the southern parts of the New England and Middle States. — RUTHVEN DEANE, *Cambridge, Mass.*

Bull. N.O.C. 5, April, 1880. p. 118.

239. NORTHERN WAXWING. — (*Ampelis garrulus.*) (Lin.) A rare winter visitant. Not recorded from this section previous to the winter of 1879-80. In December, '79, Mr. J. Hunter, of this place, observed a flock of sixteen of these beautiful birds in a mountain ash tree, about a half mile from Sterling, Cayuga Co., N. Y. Of these he shot twelve. Noticing the white marking on their wings, and supposing this to be an albinistic form of the Cedar Waxwing, he preserved the two best and brought them to Auburn. These, coming into the possession of Mr. Wright, were at once identified. Two more specimens of this bird were taken about Christmas time of the same year at Penn Yan, N. Y., by Reuben Wood. (Gilbert).

Birds of Cumberland New Yorks by Fowler, Wright & Rathbun.

O. & O. VII. Jun. 1882. p. 132-133

The Bohemian Waxwing in Onondaga County, N. Y.— During the hard snow storm of Feb. 10, 1899, a flock of about 50 Cedar Waxwings were seen in a mountain ash tree, feeding on the berries. The tree is on one of the principal residence streets of Syracuse, and is thickly populated, The observer, being an amateur collector, and living but a few houses from the place, returned for his gun and shot into the flock, securing several Cedar Waxwings, and one, which was seen to drop some distance from the tree, proved to be a Bohemian Waxwing (*Ampelis garrulus*). This is the first specimen recorded from Onondaga County. It seems strange that this bird should be associated with its brother species.

I would like to know if it has been taken or recorded farther south than Syracuse, and whether these two species are in the habit of flocking together?— A. W. PERRIOR, *Syracuse, N. Y.*

Auk, XVII, Jan., 1900, p. 68.

The Bohemian Waxwing (*Bombycilla garrula*) **at Ithaca, N. Y.**— While walking over the campus of Cornell University at noon on November 28, 1914, we observed a flock of about a dozen Cedar Waxwings in a group of trees that included a berry-laden mountain ash (*Pyrus americana*). An hour later we had stopped to watch the birds again, and were discussing the points of difference between the notes of our two species of Waxwings. At that moment the characteristic notes of *Bombycilla garrula* most opportunely caught our attention, and their author was presently distinguished among the rest of the Waxwings by means of its larger size and its white wing markings. In order that others might share in the pleasure of seeing such an unusual visitor, we summoned by 'phone Messrs. A. A. Allen, L. A. Fuertes, and A. H. Wright, and all were enabled to make observations on the bird under very favorable conditions.

Its actions accorded with the proverbial gentleness and amicability of the Waxwings. It allowed a Cedar Waxwing to perch beside it and feed upon the same cluster of mountain-ash berries; and twice a berry seemed to be passed from one to the other. It was somewhat restless, and once it circled swiftly around a nearby house, swerving from side to side in an erratic course suggesting that of a Teal.

The following prominent characters served to distinguish the Bohemian Waxwing from the other species in the field: its larger size; the white markings in the wing, conspicuous whether the bird is flying or at rest; the larger patch of black on its chin; its generally grayer coloration; and its chestnut-rufous under tail coverts.

Furthermore, its notes are very diagnostic. Though similar in general form to the "beady notes" of *B. cedrorum*, they are less shrill, are more leisurely uttered, and have a more noticeable rolling sound. They are also more distinct, there being a comparatively greater interval between each syllable in the series. The call has been represented by Seebohm as *cir-ir-ir-ir-re* (quoted in Sharpe's 'Hand-book to the Birds of Great Britain,' Vol. I, p. 177) and by Cameron as *zir-r-r-r* ('The Auk,' Vol. XXV, 1908, p. 47), but neither rendering seems to express exactly the decidedly sibilant quality of *each* syllable.

The bird was collected by Dr. Allen, and sketched in the flesh by Mr. Fuertes. It proved to be an adult male in full plumage. The skin has been placed in the collection of the Cornell University Museum. This is the first specimen recorded from the Cayuga Lake Basin.

On the following morning another Bohemian Waxwing was reported in the same place by Mr. H. H. Knight.— LUDLOW GRISCOM AND FRANCIS HARPER, *Ithaca, N. Y.*

Auk XXXII. July. 1915 pp. 369

Albinism in the Bohemian Waxwing. — On the morning of November 17, 1879, I shot a female Bohemian Waxwing (*Ampelis garrula*), which presented a lighter appearance than the rest of the flock; and when picked up I discovered that it was an albino. The description of this bird is as follows: — While the color of the ordinary Bohemian Waxwings varies some in different birds, in this specimen it is fully two shades lighter all over the body. The chestnut of the under tail-coverts, the orange-brown of the front and sides of the head, are the same as in ordinary specimens; but the velvety-black of the chin and the narrow line extending across the forehead and along the sides of the head, through the eyes, meeting on the occiput behind the crest, are in this specimen a *dusky* black. The very dark gray of the primaries, secondaries, and primary wing-coverts of the ordinary bird, is in this albino grayish-white, edged with brownish-ash; the yellow (or white) stripe at the end of outer webs of the primaries is the same; but directly opposite this, on the inner webs, is a triangular spot of pure white. The white tip on the outer webs of the secondaries is much larger than usual, and the secondaries are wax-tipped. The greater wing-coverts are pure white, delicately edged with brownish-ash, and broadly tipped with the same. This patch of white is very conspicuous, owing to its size. The yellow band on the tip of the tail is more of a lemon-color, and has not that distinct dividing line which is usual, but rather fades into the grayish-white of the tail-feathers. The tail-feathers above the yellow band are broadly edged on both webs with brownish-ash. The quills of the primaries, secondaries, the primary and greater wing-coverts, and the tail-feathers, are very dark gray; while the pure white patch on the sides of the under jaw, and the delicate crescent of white on the under eyelid, are the same as usual. Bill and feet normal. The peculiar markings of this specimen form a very beautiful bird, and, as it has been remarked, "give it a frosty appearance." — W. L. Walford, *Minneapolis, Minn.*

Bull. N.O.C. 5, July, 1880, p. 183-184.

Bohemian Waxwing (*Ampelis garrulus.*) Took two (2) specimens yesterday (Jan. 30th) from a flock of seventy or eighty on Clear Creek. These are the first I have seen here. These birds agree with Dr. Elliott Coues' description, with one exception, and that is in regard to the white on the under eyelid as in the Cedar Bird (*A. cedrorum.*) Yet these birds are undoubtedly garrulous. I do not like to differ from such an ornithologist as the Doctor, but I will give my description and can show the specimen. Under tail coverts, chestnut; front and side of head, orange-brown color; primary wing coverts, tipped with white; wings, with yellow and white at outer web; chin, black; small black line across forehead and running through eyes meets on back of head, just back of the crest; bill and feet, black; tail, tipped with yellow; white on under eyelid, but none across forehead; 7.9 in. long; wing, 4.2 in. This bird generally retires south, but is occasionally seen during an open winter in large flocks. The prettiest thing about this bird is its curious appendages on the inner quills of the wing, which resemble red wax. Although not a singer, it has a very pleasant note when heard in winter. I have never yet found signs of insect food in the stomach of these birds, and I am inclined to think they feed entirely on berries and seeds.—*Charles F. Morrison, Ft. McKinney, Wyoming.* O. & O. IX. Apr. 1884. p. 40

Birds of Northwest Region.

The Bohemian Waxwing.

This magnificent bird is a tolerably common winter visitor to this locality, in fact it is a characteristic bird of the northwest. Inhabiting as it does the northern part of both hemispheres, straying in this country south to the northern tier of states in winter only, comparatively few have an opportunity of observing its habits, hence a few notes may be of interest.

As far as my experience goes I find that these birds visit this locality every two years. I remember seeing them in '83; in '85 they were quite common, in '87 they were found, but very few; last year not a solitary bird could be found, while this year they are more numerous than ever before.

In '87 the first were seen the latter part of February, this year they put in an appearance on January 17, when a flock of about fifty were seen, since then they have been seen almost daily up to date (February 20).

All seen this year so far have been in the city; there are probably about four flocks of fifty each in different parts of the town. Occasionally they all join in one large flock and when they light on a mountain ash tree, it is surprising to see how the berries disappear. While thus engaged they are very tame, allowing a person to walk directly under the tree without taking alarm. While in search of food they are very restless, flying about from one place to another, remaining but a moment at each place till a suitable ground is found. After gorging themselves with mountain ash berries which form their principal article of diet, they fly to a neighboring tree to enjoy the effects of their meal. The tree selected is generally one tall enough to allow the sun's rays to reach them over the house tops. Here they sit for hours if undisturbed, sunning themselves and digesting their food; under such a tree the ground will be found strewn with the skins of the berries, they swallowing the pulp and seeds; occasionally one will fly down to the roof of a house and take several large mouthfuls of snow; the berries seem to make them thirsty, as I have seen over half the flock eating snow at once, after feeding on the berries. They are generally found feeding early in the morning and again late in the afternoon; where they spend the night I have never been able to ascertain, but they are always seen to depart in the same direction as evening draws near.

Their manner of flight is peculiar; instead of moving in a compact body as most gregarious birds do, they string out, only two or three birds being abreast, giving the flock a much larger appearance than it really is. They are a long bodied bird and together with their quite long tail and neck, they present an odd appearance in flight; there is also a peculiar flutter of the wings, something characteristic of this species.

Quite often they are found in a frolicsome mood; a flock will pitch out of a tree top and with astonishing rapidity skim along near the ground, dart up over a house, turn a sharp corner like a flash and presently return to the same tree as meek as can be. Sometimes this feat is performed by a single bird and can hardly be followed by the sight. When acting thus their flight most resembles the nervous flying of the Chimney Swift, but much more rapid. A Peregrine Falcon would, I believe, be taxed to his utmost to overtake a Waxwing.

In looking over a series of these birds many curious forms are found. One has the outer quill of the tail only about one-fourth as wide as its fellows, a regular "spurious quill" in fact. Another has the yellow band on the tail missing, with the exception of a few fine yellow threads in some of the feathers; it had surely not been worn off as the tail was perfectly formed. Others have the yellow mottled with black and still others have the color bright and pure on one side of the tail and either missing or pale on the other.

High plumaged birds have the red "wax" on the tip of the tail as well as the wings, they are also said to have it occasionally on the end of the crest but I have never found one; they are generally more highly developed in the male.

These red appendages do not necessarily denote maturity, for on Oct. 9, 1888, I took a young bird in streaked plumage with the "wax" well developed. Taking this bird at that time of the year I consider of unusual occurrence and must have been raised in the vicinity as it was very young, pin feathers showing in various places. It was taken in the city, in company with a flock of young Cedar birds. Possibly there may have been more of *garrulus* among them, but I saw only this one.

The Waxwings generally leave us about the middle of March, but they have been known to linger as late as the latter part of April.

Geo. G. Cantwell.

Minneapolis, Minn., Feb., 1889.

O. & O. XV, Feb. 1890 p. 20-21

1472. *Bohemian Waxwings.* By Dean W. Park. *Ibid.*, No. 5, May, 1886, p. 34.

Rand. Notes Nat. His. III

cedrorum

Ampelis cedrorum

1897

January

February — Our garden, Cambridge at flowing apple berries C. 19 (30+) 20 (125+) 21 (16+) 22 15 23 (5) 24 (2) 28 (4) 1897.

March — C. (Mt. Auburn) 2 (12) Cg. 11 (12) Cg. 28 hd. Asparagus bed, Concord 21 (100+) 30 (164c) W. Bartlett 1897.

April

May — B. 6 (18) 1897.

June

July

August — C. 25 Cg. 28 (2) Cg. 29 hd. Cg. 30 hd. 1897.

September

October

November

December

1898.

January

February

March

April — Concord 13 (14) 1898.

May — Concord. 18 hd. 19 (16) 20 hd. 31 hd. 1898.

June — Concord. 1 hd. 4 (2) 6 (8) 22 (4) 1898

October — 6 hd. 7 (14) C. Birch Id. Concord 1898

1899

January — Cg. 30 1899.

February — Cg. 1 1899

March — B. 12 (15) O. A. Bolling C. Chas. Deane's Sparks St. 31 (17) W. Deane 1899

April — Cg. 1 (12) (15) Cg. 2 (40) Cg. 13 (2) 1899.

September — Cg. 15 (12) 1899

June — Davis Hill 20' 23' Davis & Ball's H. 26 (4) (2) Keys Pitch 29 Concord. Cg. 6 hd. Cg. 7 2 1899

July — Cg. 31 hd. 1899.

August — Cg. 9 hd. Cg. 10 hd. 1899.

December — On or near hot. ash tree at Mrs. Dexter's, Sparks St. George Deane 7 (5) 8, 9 (4) 10 (4) 11 (4) 12 (4) 13 (4) 14 (9) 15' 16 (5) 17 (14) 18. Cg. 14 (16), Cg. 17 (6) 1899.

November — 11 (12) Our garden Cambridge, W. Deane. 1899.

A. cedrorum

Ampelis cedrorum.

1900. March 30 (2 ♂) Judge Hoyt's Woods (2 Robins) April 2 1 (20) T.S.H. May 7 (20) Est adjoining woods Purdin 27 hd. D.H. 28 2 B.T. 30 (2) B.H. 31 (2) B.H. June 16 hd. 17 4 B.H. 27 hd.

" July 16 hd. August 1 hd. 2 hd. 4 (11) 5 hd. 16 2

1901. May 22 (5) W. Bed. 27 2 28 3 June 2 (2) 17 hd. 23 hd. 7. 30 2 B.T. July 9 (3) 12 ♀ flycatching over river 13 B.H. 14 hd. B.H.

" August 18 hd.

1902. March 16 (10) B.H. flying over B.H. swamp 30 (15) Ed. Edwin Barrett's Horse catching flies May 12 ♀ 18 ♀ June 1 (14) B.H. 14 hd. 15 hd. (2) B.H. ♀

" July 6 ♀ catching flies 13 hd. B.H. 27 hd. ♀ August 3 (2) 9 (2) 10 4 October 2 ♀ D.H. 6 (14) B.H. c. flying

1903 May 21 ♀ W. Bed. in apple orchard 28 hd. ♀ 29 hd. ♀ 30 hd. ♀ Birch hd. ♀ June 23 (2) July 12 2 15 hd. ♀ 19 hd. ♀ 26 hd. ♀

" August 2 (2) Blueberry pasture 9 4 ♀ 16 (2) ♀ 30 (3) Ritchie hd. ♀ 31 hd.

1904. April 12 (24 c (50) Pine Pond Birch hd. ♀ 13 ♀ May 13 (3) ♀ 21 hd. ♀ 22 hd. ♀ 26 (2) ♀ 27 (2) ♀ 28 (2) ♀ 29 hd. ♀ 31 (4) ♀

" June 1 (6) (30) W. Bed. flies in apple orchard eating Canker worms 2 6 W. Bed. 3 2 4 (12) ♀ 5 hd. ♀ 6 hd. ♀ 8 hd. ♀ 10 (2) ♀ 11 hd. ♀ 21 (3) B.H. 23 hd. ♀

" July 1 hd. ♀ 3 ♀ 23 (6) ♀ 24 hd. ♀ August 7 hd. ♀ 14 (4) River ♀ 21 hd. ♀ September 1 (6) ♀ 3 (10) ♀ October 11 ♀ in elms near house.

1905 May 14 (5) ♀ in blossoming apple trees eating petals greedily 21 ♀ saw in dead trees 23 (2) ♀ 24 (3) ♀ 29 hd. ♀ 30 (2) ♀

" June 2 (12) W. Bed. Mr. Scott's apple orchard. 4 ♀ 15 hd. ♀ 30 (2) July 9 hd. ♀ 10 2 ♀ 29 2 ♀ August 13 (3) B.H. Berry pasture. 19 ♀ Grant Mr. ♀ 20 (3) ♀ 21 (5) ♀

" (August) 26 hd. B.H. 27 hd. ♀ October 3 hd. B.H.

1906. May 2 (12 or 7) Purdin 3 (13) Gallert Pond Hill ♀ heard 8 (11) c. Gallert Pond Hill ♀ 18 ♀ Several heard in Blossoming apple trees. 25 ♀ Several hd in apple trees 26 ♀ 29 hd. ♀ 31 (6) ♀

" June 1 hd. ♀ 2 hd. ♀ 3 hd. ♀ 9 hd. ♀ 18 hd. ♀ 19 hd. ♀ 23 2 ♀ 24 hd. ♀ July 8 (2) PR ♀ 15 (2) ♀ Berry pas. B.H. 21 hd. Riv. near Ball M. H.

" August 5 hd. ♀ in Berry pasture Bennett's B.H. hd. 12 hd. B.H. 18 (13) c. (2) B.H. 24 (4) B.H. catching flies over river. 20 (40) ♀ 21 (40) ♀ 22 (40) ♀

" September 7 (5) ♀ in trees chasing H. W. Hazelhurst. 10 (3) ♀ 12 (3) ♀ 13 (3) (2) ♀ Carlisle

1907 May 19 ♀ heard in blossoming apple orchard. 30 hd. ♀ June 3 hd. ♀ 4 hd. ♀ 5 hd. ♀ 6 hd. ♀ 15 (2) ♀ in apple trees. July 1 hd. ♀ 14 (2) B.H.

" August 21 hd. 22 hd. September 3 (2) Gr. Meadows ♀ 4 (3) B.H. 7 ♀ 8 hd. B.H. 9 ♀ Ritchie 10 (3) ♀ 11 hd. B.H. 16 (12) ♀ 20 (9) ♀ A. cedrorum

" (September) 24 (20) c. ♀ Berry pasture hills 25 ♀ 28 hd. ♀ Berry pasture 30 hd. October 1 sw. hd. ♀ 2 (7) ♀ in elms.

1908 March 20 (50+) Mr. Howes place Pas. ♀ "Berry Field" Waldo Forbes 24 (25+) Ritchie place flying N. April 23 (6) ♀ eating Barberries 26 ♀

" May 6 (5) ♀ B.H. 13 flock hd. ♀ 22 (4) ♀ in blossoming apple trees. B.H. 24 hd. ♀ 25 hd. ♀ 26 (2) ♀ 27 (2) ♀ 30 (2) ♀ 31 hd. ♀

" June 19 hd. ♀ August 29 (3) D.H. ♀ flycatching over river September 2 (2) ♀ 3 ♀ D.H. flycatching over river as ever Rum bank, Hunt's P. 20 (2) ♀ on white pasture.

" September 23 B.H. (a Solitary bird flying S. high up) October 18 hd. B.H. ♀

1909 May 14 ♀ several hd. in elm & blossoming apple trees June 28 hd. ♀ 29 ♀ B.H. catching flies over river.

1910. " 24 ♀ one heard in apple orchard. B.H. 30 (9) ♀ 31 (5) ♀ June 1 hd. ♀ 7 ♀ 9 hd. ♀ Ritchie pd. ♀ 12 (2) ♀ 16 (2) ♀ eating Cherries Pond hd. 29 (2) ♀

July 9 ♀ B.H. 10 (5) B.H. 17 2 B.H. 24 (2) ♀ 25 (2) Berry Pasture ♀ 31 (3) D.H. August 7 (5) (3) ♀ Berry Pas. B.H. 20 (3) ♀ 21 hd. ♀

September 4 (2) (2) B.H. 7 hd. B.H. ♀ 11 hd. ♀ 14 (4) ♀ in elms over house. ♀ 17 (8) B.H. 26 (3) B.H.

1911. March 10 (8) ♀ flying N. W. over house. April 17 (11) ♀ all, with wasps, in locust trees front of house. 19 (8) ♀ Pond Hill 22 (8) ♀ flying back & forth

May 13 (4) B.H. 24 (4) ♀ in elm over door yard. 25 ♀ hd. 30 hd. ♀ June 16 ♀ 2 at Berry Pas. ♀ August 12 hd. B.H. 13 2 ♀ B.H. 14 2

September 12 B.H. October 20 ♀ a single bird perched in tops of Bennett's trees a singing elms, calling

Ampelis cedrorum.

Dec. 1887. B.T. not observed
W.F. " "

Jan. 1888. B.T. " "
W.F. " "

Feb. 1888. B.T. not observed
W.F. 19. 26.

Mar. 1888. B.T. on list, but no dates given
W.F. 4. 5. 6. 11. 18. "et seqq."

April 1888. B.T. on list, but no dates given
W.F. " " " " " "

May 1888. B.T. " " " " " "
W.F. " " " " " "

Oct. 1888. B.T. not observed
W.F. no list for this mo.

Nov. 1888. B.T. not observed
W.F. 1 (small flock, Waverley)

Dec. 1888. B.T. not observed
W.F. " "

Jan. 1889. B.T. " "
W.F. " "

Feb. 1889. B.T. " "
W.F. " "

Mar. 1889. B.T. not observed
W.F. 31 (large flock, Arlington)

April 1889. B.T. 6 "&c."
W.F. 9. 10. 13. 14. 17. 19. 20. 21. 28. 30.

May 1889. B.T. 19. 26. 29. 30. 31.
W.F. [22. 25. 28. 29.]* 30. 31.

Oct. 1889. B.T. 2.
W.F. 1. 2. 4. 9. 10.

Nov. 1889. B.T. not observed
W.F. " "

Dec. 1889. B.T. not observed
W.F. " "

Jan. 1890. B.T. no list for this mo.
W.F. 14. 18. (27) (20) (27)

Feb. 1890. B.T. 3 (heard)
W.F. 9. (13)

Mar. 1890. B.T. 10.
W.F. not observed

April 1890. B.T. not observed
W.F. 3. 11. 14. 29.

May 1890. B.T. 30. 31.
W.F. 1. 7. 8. 9. 18. 22. 24. 25. 28. 29. 30. 31.

Oct. 1890. B.T. not observed
W.F. 5. 8. 10. 12. 15.

Nov. 1890. B.T. not observed
W.F. 1 (5) (Payson Place)

Dec. 1890. B.T. not observed
W.F. " "

Jan. 1891. B.T. not observed
W.F. 13 (heard) Arlington Hts.
"O.W.L." 25.

Feb. 1891. B.T. observed, but report not yet sent in
W.F. ~~11~~ 10 (2) (Waverley). 11 (13) (Arl. Hts.)
"O.W.L." 14. 21.

Cambridge
Feb. 26, 1891

* Mt. Graylock, Mass.

Ampelis cedrorum

1889

April 12 (U) 6 20 - 14 (U) 12 - 15 (2) 25 - 28 (heard distinctly) - 1889. 3 (4th) - 11 (15) - 14 (4th) - 29 (12) 1890 (Belmont Regional Farson) 1890 19 (12) (Bolles) - 23 (18) c. - 20 (20) Fox. - 22 (8 Fox. - 24 (4th Farr) 1891

May 17 (U) 4 - 19 (Ed.) - 25 (U) Ch. Dwight - 26 Ed. - 27 Eg. - 29 W. 12 - 30 B. 20 - 31 W. 15 1889. 3 B. - 19 (10) Wm. - 24 (4) Eb. - 28 Eg. - 29 (7) B. - 30 (30) Way 19 - 31 Way 10 1890

June 1 Ed. - 3 (U) 6 - 4 W. - 8 W. - 9 Eg. - 26 Eg. - 23 Eg. 1889. 1 Way. Cd. Eg., 3 Ed. 4 Eg. - 5 Eg. - 6 Eg. - 7 Eg. (25) - 10 S. - 11 Eg. - 12 B. - 13 Eg. - 14 Swamp east Eg. - 15 Eg. - 20 Eg. 1890

July 2 Eg. - 7 Eg. - 24 heard Eg. - 26 Eg. (pair) - 30 Eg. 1889. 14 (2) m.v. - 26 Eg. - 14 (3) m.v. 1890

Aug. 1 Eg. - 2 (U) 4 - 5 (U) 4 Eg. - 6 Eg. - 11 B. - 12 Eg. - 13 Eg. - 14 Eg. - 16 B. - 23 Eg. - 24 Eg. - 27 Eg. - 28 Eb. - 31 Eg. 1889. 7 Eg. - 8 Eg. - 12 (3) Eg. - 13 (2) Eg. - 19 (2) Bg. - 22 Song - 28 (3) Bg. - 29 (2) Eg. 1890

Jan'y 14 (27) Brookline MB - 18 (27) (20) Brookline Farson 1890 25 (30) (Bolles) A. - 13 (heard Farson) - 1891. 7 (15) c. 1893

Feb. 1 (12) Eg. Ben. - 3 (6) Wel. a. Morse - 5 (13) Eg. - 4 (Abbotsbury 67 Farson) - 9 (13) A. (Farr) - 28 (60) (Torrey) M. H. 1890 c. - 14 (20) (Bolles) Au. - 26 (6) (Bolles) B. - 10 (2) (Farson) Way. - 11 (15) (Farson) A. 1891. Concord

May 1 (5) - 7 (1) - 8 (4th) - 9 (15) - 18 (2) - 22 (3) - 24 - 25 - 28 - 29 - 30 - 31 (Belmont Regional Farson 1890) 1890. 26 (4th) Cd. - 28 (2) - 29 (4th) - 30 (10) - 31 (6) 1892

3 (24) (Fox) Eg. - 22 (2nd) Cd. - 23 (5) Cd. Way - 27 (2nd) Eg. 1891

Feb. 4 (10) (Fox) Wav. 1892

June 21 (2) Rw. - 22 (1) Eg. - 24 (1) Fal. - 25 (1) 1890 Concord 1 (6) - 2 (6) - 3 (8) - 4 (5) - 5 (8) - 6 (5) - 7 (10) - 8 (6) - 12 (2) - 14 (3) - 15 (8) - 16 (3) - 17 (3) - 18 (2) - 19 (2) - 20 (2) - 22 (2) 1892

April 10 (15) (Farson) Melrose - 17 (23) - 23 (40) 1891 26 (1) Cd. 1892

July Concord 1 (2) - 2 (2) - 4 (2) - 5 - 6 - 7 - 8 - 9 - 12 - 13 - 14 (2) - 15 (6) - 16 (2) - 18 (4) - 19 (2) - 23 - 24 - 25 - 26 (2) - 27 (3) 1892

Aug Concord 1 (6) - 2 (3) - 3 (4) - 12 (2nd) - 13 (2nd) - 14 (6) - 15 (6) - 17 (8) - 20 (2) - 21 (2) - 22 - 23 (3) - 28 (2) - 29 (2) - 30 (2nd) - 31 (2) 1892 *A. cedrorum.*

Sept Concord 8 (2) Eg. - 16 (3) Wav. - 1890. 3 (2) - 4 (2) - 5 (2) - 6 (2) - 7 (2) - 8 (2nd) - 11 (4 catching flies over river) - 19 (2nd) - 21 (2nd) - 22 (2nd) - 28 (2nd) 1892

Oct. 1 - 2 - 4 - 9 (4th) - 10, 1889 (Belmont Farson) (None seen after this until Jan'y 14. 1890) 3 (4th) - 8 - 10 - 12 - 15 - 1890 - 8 (6) Sanger 1891 8 (2) Cd. 1892.

Nov. 1 (5) (Fox) B. - 1890 1 (2) Cd. 1892 - 1 (Waverley Small flock (W. Farson) 1888

Dec. 25 (18) c. - 26 (14) c. 1892.

March 13 (14) Eg. - 8 (25) (Fox) Wm. - 21 (30) W. - 22 (30) Wav. - 23 (24) Eg. - 31 (20) (Fox) - 2 (100) - 6 - 7 - 8 (15) - 12 (20) - 22 (200) Melrose Highlands - Torrey 1891.

Ampelis cedrorum.

1893.

January — c. 7 (15)

February — Wav. 4 (10) (Fax)

March — a 13 (27) (Fax) -

April — Cg. 17 (1) - 19 (15) (Faxon)

May. — 22 (2 Balls H.) 23 (2) - 26 (2) (5) - 27 (3) - 28 hd - 29 (5) - 30 (3) - Concord.

June — Concord 28 (2)

July. — 1 hd - 2 (2) - 3 2 - 5 2 - 12 hd - 14 1 - 16 hd - 18 1 - 19 1 - 23 2 - 28 1 - 29 1 - 30 hd - Concord.

August. — 2 1 - 7 3 - 8 2 - 11 2 - 12 hd - 13 2 - 14 1 - 19 1 - 21 2 - 25 3 - 26 - 27 - 28 1 - 31 1 - Concord.

September. — 2 (16) c (Balls H.) 4 1 Flycatching over river - 8 1 do. Concord.

October

November — Cg. 6 (2) (mountain ash).

December

1894.

January

February

March — 2 (10) (Fax.)

April

May — a. 13 (8) (10) Fax. a. 16 hd. Concord 26 hd 27 hd 28 hd

June — Cd. 7 (2) Wareham 9 10 pairs 10 8 11 6 pairs

July — Cg. 5 hd Cd. 25 (2) Cg. 31 hd

August — Cd. river 5 (8) - Cg. 7 hd Cg. 9 (3) Cg. 11 (2) Cd. river 12 (2) - Cg. 14 hd Cg. 19 hd.

Sept.

Oct.

Nov.

Dec. — Cg. 23 (3) eating berries (flowering apple)

A. cedrorum.

Ampelis cedrorum

1895.

January

February — Wav. 4 (4) Cg. 19 (51) at flowering apple / Feeding on flowering apple in our garden, Cambridge 20 (67) c. do 21 (48) c. do. 22 (50+) do 23 (26) 25 (50+) 26 (20) 27 (34)

March — F. Lowe Flowering apple Cambridge 6 (11) 7 (11) 9 (15) 14 (7) 16 (17) 23 (8) Bg (Cedar)

April

May — B. Rock M. 9 (heard) Milton Hill 14 (12)

June

July — Cg. 4 2 (eating cherries; the first seen in cherry trees this year)

August — Cd. 9 (2) Cg. 26 (4) (rum cherries ripe)

September — 1, 6, 7, 8, 17, 18, 20, 24, 25, 28 — W. Faxon.

October — 6 (2)

November — W. Faxon's notes 10 (12), 17, 24 (8), 28 (16)

December — 1 (40) (12) (W. Faxon) — Roxbury 30 very numerous now. (F. H. Brackett)

1896.

January — Arlington 26 (71) c. (Faxon)

February — Cg. 4 (13) Cg. 6 (6) Cg. 11 (8) C. (Brattle St.) 27 (10) in Mt. Ash

March — Cg. 8 (6) Cg. 10 (21) Cg. 14 (10+) Cg. 20 (10+) C. (Craigie St.) 22 20+ A. 25 (78 c) (4)

April

May

June

July — Canton 27 heard

August — Cg. 6 (2) (flying over)

September

October

November

December

A. cedrorum

Ampelis Cedrorum

1889 Mass.

May 29 Watertown.— About a dozen, four flying together, the others in pairs in cedars, pines, and apple orchards, evidently getting ready for nesting. I have seen pairs & single birds in my garden the past week. I also saw a flock of six flying over it one day. At this season, however, Cedar-birds, when in flocks, fly in loose straggling order not in compact bunches as in winter & early spring. — In pairs & small flocks. — Flocks loose & scattered at this season

June 20 Watertown.— Searched the orchards, cedar groves etc. where I saw so many birds on May 29th but failed to find either the birds or any of their nests. I am inclined to believe that most of those observed on the date first mentioned were migrating. I saw a Cedar Bird in my garden to-day, however; it was feeding on cherries.

1890

Jany 14 Brookline.— A flock of 27 (counted) on the edge of the cat-tail swamp. When first seen they were scattered over a large cedar feeding on the berries but later they flew into the top of a dense oak where they clustered closely together and sat a long time singing. Faxon who was with me says he has seen none for two months or more. He also says he cannot find a single berry on the cedars in Belmont & Waltham. Are the birds seen to-day migrants? — Early arrival?

" 18 Faxon saw the flock of 27 birds again in the same cedar tree. Upon inspecting it he found it well supplied with berries. Later in the day he came upon another flock of Cedar Birds containing 20 individuals which were feeding on privet Berries. The place was in Brookline half a mile or more from the first locality & the flock certainly not the same. No Cedar Birds yet reported from the Cambridge - Watertown - Belmont region: It looks as if these Brookline flocks were winter residents, not early migrants from the south.

Ampelis cedrorum

1890 Mass.

May 19 Waltham – A flock of eight or ten in a white oak in the woods apparently feeding on abundance of mixed food. They scattered all over the tree hopping from twig to twig with a slow, heavy motion like big birds, shaking the branches as they moved and peering in a near-sighted way among the unfolding leaves. These are the first birds of the second Spring migration. — Second Spring migration. Feeding in oak

" 30 Wayland. A little after sunset saw an immense flock rise from an apple orchard and mounting to about 300 ft. fly out of sight in a northerly direction. They did not fly in the usual close order but on the contrary spread out over the space of an acre or more so two birds never than 6 or 8 ft. to one another. I counted eighty and did not get nearly all at that. On this day and the following two we saw or heard Cedar Birds frequently. — Immense flocks.

June 3 Cambridge. Yesterday & to-day I have heard Cedar Birds in my garden.

" 12 Belmont. – One of a pair in an old orchard had its bill filled with a mass of something which looked like dry grass & was doubtless building material. — Building

1878 Mass.

June 17 Wayland. – E. A. & Outram Bangs take a nest with four eggs which are far advanced in incubation. Nest in apple tree — Nests

" 23 Watertown. – E. A. & Outram Bangs take nest with four fresh eggs. This nest also in apple tree.

1891

March 21 Watertown. – A flock of about fifty at the asparagus bed at the corner of Arlington and Mt. Auburn Sts. Their windows was the same elm just over the wall that they have used for twenty-five years or more and from it they made frequent flights to the asparagus stalks and back again a dozen birds being frequently in the air at once but the greater part of the flock most of the time in the tree. Cedar Birds have been numerous for more than six weeks but these are the first that I have seen eating asparagus berries. — Eating asparagus berries.

Ampelis cedrorum

1891 Mass.

March 23 Cambridge. - While sitting in my study, this morning, writing, all the windows being closed at the time, I became conscious of a peculiar, intermittant, ringing sound like that caused by the vibrations of some resonant material, perhaps glass, or not unlike some of the higher-pitched vibrations of a tuning fork. Although very faint they were so penetrating and insistant as to cause me, after a while, to lay aside my work and investigate. Failing to find the origin of the sound inside the house I finally opened a window and at once heard the lisping notes of a number of Cedar-birds which were sitting in clusters on the top of one of the Lindens over the house. I record this episode simply because it shows that the notes of the Cedar-bird have a quality which is not conspicuous on ordinary occasions. Indeed it is surprising how far they carry at times and how penetrating the sound is under certain conditions.

Penetrating quality of notes

The birds observed this morning visited my ancient cedar but found no berries the Purple Finches having eaten all of last years crop (in August, 1890.) This is the second flock of Cedar-birds which I have seen on my place this month. In Watertown and Belmont they have been fully as numerous, during the past six weeks, as they used to be twenty-five years ago showing that the ceaseless persecution which they suffer has no appreciable effect on their numbers.

Abundance in Feb. & March 1891.

Massachusetts. *Ampelis cedrorum*

1892.

June. 15 Concord. Two Cedar birds sitting on a dead branch near my cabin passed something back & forth between them each as it accepted the proffered offering throwing up its head, opening its bill wide & quivering the half opened wings precisely like a young bird. I had left my glass in the canoe unfortunately & failed to make out what the morsel was. A third cedar bird at one time joined the others two without opposition a welcome on their part, then after sitting still a moment, left them.

Nov. 1 I saw two Cedar Birds this morning on the edge of Ash Swamp sitting close together in a small buttonwood. There were many barbery bushes loaded with fruit in the vicinity.

Ampelis cedrorum.

Concord, Mass.
May 21. 1898.

Cedar Birds appeared near the cabin window (22nd) Cedar Bir-
-a pair of them, sitting in the tops of blossoming ar-
young oaks and launching out after flying insects.
They are the first that I have seen in Concord
this year.

Ampelis cedrorum.

1892 Mass.

Dec. 25 Cambridge. – A flock of 18 sitting in the top of a horse chestnut in front of Mr. Nichols's house. The day was bitterly cold and the birds' looked dumpy & dejected & their plumage excessively puffy. There was a cedar tree not far off. I saw this species last on Nov. 1 – two birds together at Concord. None reported since.

" 26 A flock of 14 feeding on berries of mountain ash on Bratth St. opposite the old Choate place. Only one bird, so far as I could see, had wax decorated wings.

1893.

Jan'y 7 Visited the mountain ash tree on Bratth Strat for the first time since the 26th ult. The Cedar Birds were there but there were 15 birds in the flock this morning. I am perfectly sure of the correctness of this count and equally so of the counts made on Dec. 25th & 26th. Why does the number vary on different occasions? The flock must be the same. They have made serious inroads into the supply of mountain ash berries but there are still a good many left on this tree.

1894

June 9-11 Wareham. – Very abundant throughout the pitch pine woods on the barrens – "Plymouth woods" – in pairs, the majority acting as if looking for nesting sites. Two nests, with one & two eggs respectively, found June 11th in pitch pines. The ♀ sitting on the one egg, panting (it was 90° Fahr. at the time) with bill wide open.

Breed very numerously on Cape Cod.

On the morning of the 10th June I saw a Cedar bird in oak woods rambling about on the ground, moving by short hops & rustling the leaves like a Towhee for which I at first mistook it. It proved to be searching for checkerberries of which I saw it eat five or six. It swallowed them with some effort for they were very large. It ranged over a space of twenty yards square while I was watching it.

Eating Checkerberries

Query! Do Cedar birds breed so numerously on the Cape because they can get an abundance of checkerberries there (of the only early June berry)

Ampelis cedrorum.

1895. Mass.

December Roxbury. – During this month Cedar Birds have been very numerous in Roxbury although none have been seen in the Belmont-Arlington region since Nov. 28th. A large flock remained at the Arnold Arboretum up to Dec. 12th. On December 30th Mr. F. H. Brackett wrote me as follows: "Cedar Birds are very numerous just now, feeding on the berries of the mountain ash. A flock has been enjoying themselves on my neighbor's tree for about two weeks now but the berries are about gone and cannot last many days longer. My wife counted 46 at one time on a tree in our yard and thinks there were more xxx. My brother counted over 100 at one time in his tree in Roxbury.

The Cedar Birds in large numbers visited the two mountain ash trees at the Keyes place in Concord daily during the last two weeks of September but none were seen there after Oct. 6th although Robins spent sometime longer in these trees before they finished the berries. In Cambridge no birds have as yet attacked the mountain ash fruit although our trees are as abundantly supplied as any elsewhere in this region.

1891

February Wellesley Hills "I have just received Lorey's Feb. dates for the Cedar bird:

2^{6} 6^{12+} 7^{17}, 13^{6}. 28^{60+}" (W. Faxon, Cellis Mich. L, 1891)

1897

Feb. 19 Cambridge. A flock of about 30 appeared in our garden for the first time this winter & at once attacked the fruit of my flowering apple. During a snow squall they perched in the upper branches of an elm whence they made frequent sallies after snow flakes pursuing & catching them precisely as they catch flies in summer, 6 or 8 birds being frequently out in the air at once. Catching snow flakes

A small flock of Cedar Birds wintered in Belmont but I have heard of no others

" 20 Fully 125 Cedar birds at the flowering apple (They stripped it completely in three days)

Ampelis cedrorum.

Cambridge, Mass.

1898. March 1. Where are the Cedar-birds? A small flock was seen in Belmont in December and Torrey met with a very large flock (upwards of 100) at Wellesley Hills early in the winter but if the usual February flight has come up from the south none of its members have visited this immediate neighborhood for had they done so they would surely have appeared in our garden. My Parkman's apple has a good crop of fruit and some of the hawthorns are covered with berries.

Peterborough, New Hampshire.

1898. July 5 to Aug. 15. From two or three to six or eight seen daily. On July 20th upwards of thirty were noted at Cunningham Pond where the attraction seemed to be shad bush berries on which the birds were feeding greedily.

Cambridge, Mass. February birds in the Garden.

1899. February. A solitary Cedar bird with wax-tipped wings appeared in the crab apple tree at 1 P.M., Feb. 1st. It was doubtless the same bird which we saw in the garden, January 30th. Strangely enough it did not appear to notice the unusually abundant fruit which still hangs on our Parkman's apple and on some Viburnum opulus bushes, and still more strangely this fruit has not attracted any other birds of the same species.

Ampelis cedrorum

1896 Penobscot Bay, Maine.

July 8 Isle au Haut.. Six together among small spruces near the summit of the island; seen by C. W. Watkins

" 15 Sedgwick } Common & very generally distributed but seen oftenest
" 16 Brooksville } in spruce grown pastures.

" 16 Deer Island. Knight tells me that he has seen a pair of Cedar birds repeatedly near his house about the middle of last month

Ampelis cedrorum

1897 New Hampshire

March 7 Lancaster (about latitude of Grafton, Me). A flock of over 100 appeared to-day in a garden feeding on barberries. Thr. below zero of the time. (Fide F. B. Spaulding letter March 7/97)
(Cedar birds appeared first in our garden in Cambridge this season on Feb. 19)

1897 Maine.

June 20 Lincoln. "We have had an Albino Cedar Waxwing come in to be mounted. It is all white except the very tip of its tail which is very pale yellow. It is a young bird but in good feather - had pink eyes"
(W. J. Clayton, letter Aug. 24, 1897, Lincoln, Me.)

1898 Mass.

Apr. 13 Concord. A flock of 14 passed over Davis's Hill flying due north and perhaps migrating. [Journ.].

July 2-4 Glendale (in or near), Berkshire Co. Common - [Journ].

1899

Dec. 17 Cambridge. - While watching a flock of 14 Cedar birds this morning W. Deane & I saw two of them, sitting near together in a hemlock, pass a mountain ash berry back and forth between them fifteen or twenty times. The berry was held in the tip of the bill and delivered by a quick forward thrust almost forcible enough to be called a picking motion. The other bird would catch or receive it with great adroitness & precision and after holding it a moment return it in a similar manner. Once a third bird approached & tried to participate in the game but was gently repulsed or at least ignored. I was at a loss to understand the meaning of the act but it looked like idle play rather than anything of a sexual character. It ended by one of the birds dropping the berry apparently intentionally as if tired of the sport. Four Cedar birds appeared in the trees about the Charles Deane house on the feeding on mountain ash berries & remaining seven days. Single ones were seen in our garden on the 14th eating berries of Parkman's apple, hawthorn, mt. ash & Viburnum opulus.

Passing a berry from bill to bill.

Ampelis cedrorum.

Cambridge, Mass.

1899. Perhaps the February flight of Cedar Birds did not take place February. this year. I certainly have not heard that it did.

(No.2)

Notes from St. John, N. B.

During the Winter of 1879, '80, the Cedar Bird (*Ampelis cedrorum*) weathered the rigors of our climate as late as the middle of January.

O. & O. VII. June 1882. p. 134

Birds of Upper St. John.
Batchelder.

36. **Ampelis cedrorum** (*Vieill.*) *Bd.* CEDARBIRD. — It was not uncommon at Grand Falls. At Fort Fairfield we found it common.

Bull. N. O. C. 7, April, 1882, p. 110

Notes from St. John. N. B.

I give a few causes that may be attributed to these birds remaining with us through this particular Winter, not that it was milder than usual, or more broken; rather the reverse, for several days the mercury reached the cypher. The abundance of food the Cedar Birds found in the berries of the Mountain Ash was a great attraction for them, for on these they fed sumptously; in fact, gorging themselves to such an extent that they would apparently become stupid, and when in this state allow themselves to be captured by means of a wire noose attached to a fishing rod. If the wire happened to touch them before you succeeded in placing it over their heads, it would not alarm them in the least. They would pick at it, turn their heads and examine it, as though it were quite a curiosity. When one was captured the balance of the flock would fly away in great alarm. I kept several of these birds in confinement that I had captured in this way; they, however, proved themselves such very uninteresting pets that I afterwards gave them their liberty.

The abundance of food they found in the berries must have been a great attraction to them, for when the supply was exhausted, and they had entirely stripped the trees, they disappeared, and did not again put in an appearance until June, which is their usual time of arriving from the south. None of the specimens that I captured had the usual waxen appendages on the secondaries, and were mostly young birds which had probably bred farther north and were only then moving south as scarcity of food and severity of weather compelled them; but why does not this occur every year? The berries upon which they fed have since been as abundant and no Cedar Birds have appeared at this late season. Their appearance may then be attributed to an erratic migration on the part of these birds. I was quite disappointed on first discovering them to find they were not the Bohemian Waxwing, (*Ampelis garrula*), for which bird I have kept a sharp lookout, but have not as yet succeeded in securing a single specimen. Harold Gilbert.

O. & O. VII. June. 1882. p. 134.

Last Dates Migratory Birds observed by
E. D. Wintle, Fall 1885, Montreal, Can.

Sept. 17, Cedar Bird,
occasionally seen throughout the winter here.

O. & O. XI. Mar. 1886. p. 44

Breeding Dates of Birds in Kings
County, N. S. Watson L. Bishop.

Cedarbird (*Ampelis cedrodrum*). June 20. July 3, 4.

O. & O. XIII. Mar. 1888 p. 45

common summer

, 235

27

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O. & O. VII. June 1882. p. 134

Birds of Upper St. John. Batchelder.

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Bull. N. O. C. 7, April, 1882, p. 110

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O. & O. XI. Mar. 1886. p. 44

Breeding Dates of Birds in Kings County, N. S. Watson L. Bishop.

Cedarbird (*Ampelis cedrodrum*). June 20. July 3, 4.

O. & O. XIII. Mar. 1888 p. 45

same year at Penn Yan, N. Y., by Reuben Wood. (Gilbert).

240. BLACK-THROATED BUNTING.—(*Spiza americana.*) (Gm.) Bonap. June 6th, 1879, an adult male was taken by F. S. Wright near the village of Cayuga, N. Y. A second male was taken by Mr. Wright in the same locality, June 9th, 1879. Both birds were in full song, and were shot from alder bushes overhanging a brook.

Linn. One specimen in immature plumage was taken on Cayuga Lake, N. Y., October, 1879, by Wm. A. Demont, and identified at Auburn.

Birds within Ten Miles of Point de Monts, Can. Comeau & Merriam

26. **Ampelis cedrorum**. CEDAR-BIRD.—A tolerably common summer resident.

Bull. N. O. C. 7, Oct, 1882, p. 235

Summer Birds of Sudbury, Ont. A. H. Alberger.

619. Cedar Bird. Abundant. Breeds.

O. & O. XV. June. 1890, p. 88

Summer Birds of Bras D'Or Region
Cape Breton Id., N.S. J. Dwight, Jr.

45. *Ampelis cedrorum.*

Auk, 4, Jan., 1887. p.16

Summer Bds. Restigouche Valley, N.B.
July, '88. J. Brittain and P. Cox, Jr.

Ampelis cedrorum. AMERICAN WAXWING.—Common in places burned over a few years ago, where wild cherries and June-berries are to be found.

Auk, VI. April, 1889. p.118

Dwight. Summer Birds of
Prince Edward Island.

Ampelis cedrorum. CEDARBIRD.— Seen now and again, but not common. There is a remarkable similarity between a lisp of this species, a certain note of the Robin, and one of the Hermit Thrush.

Auk X, Jan, 1893. p.12

Some Winter Birds of Nova Scotia. By C. H. Morrell.

28. Ampelis cedrorum CEDAR WAXWING. — A flock of 10 seen in the city of Amherst March 1. Auk, XVI, July, 1899, p. 253.

50

Summer Birds of the Cobalt Region,
Nipissing District, Ontario.
by Frederick C. Hubel. Auk, XXIV, Jan 1907, p. 57,

50. **Ampelis cedrorum.** CEDAR WAXWING.— Generally distributed.

Birds of Toronto, Canada,
by James H. Fleming.
Part II, Land Birds.
Auk, XXIV, Jan., 1907. p. 82.

232. **Ampelis cedrorum.** CEDAR WAXWING.— Resident, irregular in winter; breeds (June 20, 1898).

Maine (Brewer) Spring arrival

1887

March 15. Nine appeared this morning on a mountain ash in front of my window. In forty years of residence I have never seen any here before until late in May - about the time apple trees are in blossom. They are much less numerous than they used to be

Ampelis cedrorum. (over) (M. Hardy, Letter Mch. 15-87

Maine Ampelis cedrorum (Adults feeding one another)

Some Cedar birds came March 15 and remained until May 20th. There were eight the first day and they increased to 13. They fed only on the dry berries of the mountain ash, and although old birds, they fed each other exactly as they feed their young. They left at a time when the species usually arrives here.

-----Manley Hardy,--Letter of June 18, '87.

Maine (Bangor) Ampelis cedrorum

1889 Wintering

"One Robin and six Cedar Birds have lived in a Bangor garden all the past winter"

M. Hardy Letter Mch. 15-1889.

"April 11. The Cedar Birds are still here and I have heard of others in the vicinity." (M. H. letter Apr. 11)

Maine — Ampelis cedrorum (Adults feeding one another)

Some Cedar birds came March 15 and remained until May 20th. There were eight the first day and they increased to 13. They fed only on the dry berries of the mountain ash, and although old birds, they fed each other exactly as they feed their young. They left at a time when the species usually arrives here.

-----Manley Hardy,--letter of June 18, '87.

Maine (Bangor) — Ampelis cedrorum

1889 — Wintering

"One Robin and six Cedar Birds have lived in a Bangor garden all the past winter"

M. Hardy letter Mch. 15-1889.

Ampelis cedrorum

1889 Maine
July Brewer.. Manly Hardy writes me that he has lately seen Cedar Birds catching dragon flies.

Notes from Portland, Me.

The exceptionally mild winter of 1888-89 was not without effect upon birds of this region.

A single flock of Cedarbirds (about twenty in number) appeared on February 6.

J. C. Brown, Portland, Maine.

Auk, VI. July, 1889. p. 281.

Summer Birds Tim Pond Me. by F. H. C.

— Cedar Waxwing, (*Amphelis cedorum*). Commonest bird about the camps.

O. & O. XI. Feb. 1886. p. 25.

Birds of Dead River Region, Me. F. H. C.

38. *Ampelis cedrorum*, (Cedar Waxwing). One of the most abundant birds of the forests, being found about Seven Ponds in numbers, and were far more common in the wilderness than in the cultivated districts. No nests were found, but they undoubtedly breed, as Mr. Freeborn has many sets, collected in his vicinity. I was absent from the region during their usual period of nesting, which may account for my failure to record their nidification.

O. & O. XI. Oct. 1886. p. 146

Fall Birds of Northern Maine.
F. H. Carpenter.

Cedar Waxwing (*Ampelis cedrorum*). I have always met this bird in every section of Maine, and this trip was no exception.

O. & O. XII. Nov. 1887 p. 183

Summer Residents on Southwest Coast of Maine. T. H. Montgomery, Jr.

619. Cedarbird. Common at Boothbay.

O. and O. 15. Nov. 1890. p. 162

Shelburne, N. H. Aug. 8-29-1865. R. D.
Ampelis cedrorum.- Rather abundant- occasionally in flocks. One nest with eggs, another with full-grown young found.

Rye Beach, N. H. July 23-24 1885.
110. Ampelis cedrorum.- Abundant

Birds Obs. at Moultonboro, N.H.
July 21-Aug. 11, 1883. F.H. Allen

Ampelis cedrorum.—Very common.

Auk, VI. Jan., 1889. p. 78

Winter Birds of Webster, N. H. by Falco.

Cedar Bird, (*Ampelis cedrorum*). A flock of twenty or more seen in Jan. 1878, and several shot.

O. & O. X. Jan. 1885. p. 14

Birds Obsvd. near Holderness, N.H
June 4-12, '85, and 4-11, '86. W. Faxon

42. Ampelis cedrorum. CEDAR-BIRD.—Common.

Auk, **V. April**, 1888. p. 150

Bds. Obs. in Franconia, N.H. June 11-21
'86, and June 4-Aug. 1, '87, W. Faxon

50. Ampelis cedrorum. CEDAR-BIRD.—Abundant.

Auk, **V. April**, 1888. p. 152

Summer Birds of Presidential Range,
White Mts. A.P, Chadbourne

26. **Ampelis cedrorum.** CEDAR WAX-WING.— Several flew over us near the fifth mile post of the carriage road on July 11, 1884. Others were heard opposite the Half-way House on July 26. Not seen in 1886.

Auk, 4, April 1887, p. 105

Birds Obs. at Bridgewater, N.H.
July 12-Sept. 4, 1883. F.H. Allen

Ampelis cedrorum.—Common.

Auk, VI. Jan., 1889. p. 77

Breezy Point, Warren, N.H.

Ampelis cedrorum

1894.

	Warren	[illegible]					
June	15th	16th	18th	[illegible]	[illegible]	[illegible]	[illegible]
	24	[illegible]	26	[illegible]	[illegible]	29	30

Breezy Point, Warren, N.H.

Ampelis cedrorum

1895.

May 26 [illegible] 29th

June 4th 5th 7th [illegible]

CEDAR BIRDS AND ROBINS.—A pair of Cedar Birds nested in a tree in the yard of Edward Safford of this place who took the eggs. A few weeks later, on looking into the nest it was found to contain a set of Robins' eggs. Was not this unusual?—*H. B. Kingsley, Rutland, Vermont.*

O.&O. VII. Apr. 1882. p. 111

Summer Bds, Mt. Mansfield, Vt.

51. Ampelis cedrorum. CEDAR BIRD.—Said to be common. I observed them but once—four individuals on a dead tree near the summit of the mountain.

by Arthur H. Howell. Auk, XVIII, Oct., 1901, p.343.

Ampelis cedrorum

Arrival

A flock of twelve Cedar Birds came circling over one place this morning evidently looking for a place to alight & apparently just arrived. Weather cloudy & warm, in fact our first distinct winter thaw

Ampelis cedrorum. Mass.- near Cambridge.

1885. Dec 13\54 - 17\50 - 22\2 - 27\4 - 28\9 -
1886 Jan'y 18\9 - 25\20 - 27\50.
" Feb. 9\50 - 10\50. 20\9 22\6 24\50
" March 5\50 - 6\4 15\50 - 29\50
" April 9\30, 12\7, 19\20, 23\20

Mass. and New York

Ampe

1885 Unusual appearance in Dec.

Dec. Frazar tells me that C
abundant in Watertown during
weeks of Dec. A millinery collect
seventy-five in one day.

They were also seen at
about the same time and
several dozens.

Frazar also heard of th
where a correspondent of h
abundant. Thus the appearan
in Cambridge was not an isol

Ampelis cedrorum

Winter occurrence in Mass.

Hayward tells me that he and Chadbourne saw three Cedar Birds to-day among some cedars on the Hayward farm in Milton. They were with Dend coronata. Have heard of no others this winter.

Milton, Mass.
January 2, 1883

Ampelis cedrorum

Arrival

A flock of twelve Cedar Birds came circling over one place this morning evidently looking for a place to alight & apparently just arrived. Weather cloudy & warm, in fact our first distinct winter thaw

Ampelis cedrorum. Mass.- near Cambridge.

1885. Dec 13\54 - 17\50 - 22\2 - 27\4 - 28\9 -
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" March 5\50 - 6\4 15\50 - 29\50
" April 9\30, 12\7, 19\20, 23\20

Mass. and New York

Ampelis cedrorum

1885 Unusual appearance in Dec.

Dec. Frazar tells me that Cedar Birds were abundant in Watertown during the last two weeks of Dec. A millinery collector there killed seventy-five in one day.

They were also seen at Lynn, Mass., at about the same time and Vickary secured several dozens.

Frazar also heard of them in New York where a correspondent of his reported them abundant. Thus the appearance of the flock in Cambridge was not an isolated instance.

Winter occurrence

Cha
ann

in Milton. They were with Dend coronata.
Have heard of no others this winter.

Mass. (Middlesex Co.) — Ampelis cedrorum.

Occurrence at an unusual season.

1885

Dec. 13 — This morning, to my surprise, I found a large flock of Cedar Birds in Mr. Russell's front yard. They were sitting in clusters in the tops of two adjoining maples from which they made frequent incursions among the berries of the large mountain ash near at hand. This tree, like all of its kind, is loaded with fruit this year, having at least twice as many cymes of berries as I ever saw on it before. I have heard of no Cedar Birds elsewhere & consider the appearance of these remarkable. There were 54 birds in the flock.

Pigeon Cove, Mass. — Ampelis cedrorum.—

1885. — Young with waxy tips.

July 29 — Found a young Cedar Bird out of the nest but able to fly only a few yards at a time. It was sitting on a rock calling incessantly for food in nearly the tones of the parent, but more hoarsely. Another or some clothes bushes near by were equally noisy but I could not find it. The bird first mentioned had distinct shaft lines of waxy on three of the feathers (secondaries) of each wing. They were as slender as fine silk threads not spread out as in the adults. The bird sat

blueberries and house-flies
greedily. Its general coloring
was a fine smoky-drab. The
tail-feathers had not begun
to appear.

(1885)
Dec. 17. - The Cedar Birds returned to
Mr. Russell's mountain ash this
morning (12 M.) with their number
now then doubled. I counted
125 sitting in a single elm and then
were at least 25 more in the ash.
Dec. 22. Twelve at the mountain ash; kernel
of them glew to a gutter of a nightening
house when they sat large mouthfuls of
snow.
Dec. 27 Four at the Russell's mountain ash.
" 28 - Nine " " " "
1886
Jany 18. - Nine in the Russell's mountain ash.
" 25 - Twenty " " " "
" 27 - Fifty " " " "
(after this date none were seen at
this mountain-ash. The season
is very simple; they had eaten
all the berries.
In Belmont and Watertown they
were noted in large number through
Feb. and March, feeding on cedar
berries. Jan 30 Mch. 29

E. Mass. 1885. c. c 2 Camb
59. Ampelis cedrorum. - June 12, 16, 17. Sept. 30 2. Dec. 13 (54)
Pigeon Cove, Mass. July, 29-1885.
5. Ampelis cedrorum - Common. Young on wing.
Princeton & Rutland, Mass. Aug. 2-1885
9. Ampelis ced. - A flock of 10.
Princeton & No. Rutland, Mass. June, 18-1886.
20. Ampelis cedrorum Surrat

Mass. (Middlesex Co.) Ampelis cedrorum

1886. Flycatching - unusual shyness.

April 9 In the Cedar woods bordering Prospect St. Belmont I found to-day about 25 Cedar Birds. They acted in a curious manner scattering about among the densest thickets, taking flight singly as I approached and usually starting before I could get a sight at them but going only a few rods each time before alighting again. Usually I only heard the flutter of their wings. It was next to impossible to get a shot at any of them. Probably they have been hunted repeatedly. They acted very nearly

Mass. (Cambridge) Ampelis cedrorum

1886 Feeding on rum cherries.

Sept. 18 A flock of twelve in one rum cherry tree with numerous Robins. I have seen others there at intervals during the past two weeks.

Mass. (near Cambridge) 1887

January 30 30
February 4 30 - 17 flk - 20 15
April 6 25

Ampelis cedrorum.

as Fox Sparrows will under similar conditions.

About noon, the day being still and clear, and the sun warm, they took to a grove of ash and buttonwood trees standing in a small pond of rain water. Here they scattered about over a wide area, rarely more than one occupying the same tree, and perched on the topmost twigs bagged with great animation and perseverance in catching flying insects, mounting straight upward or darting out horizontally in the former case closing their wings as they descended. I have never seen them do this before at this season.

E. Mass. 1885.

59. Ampelis cedrorum. – June 12, 16, 17. Sept. 30². Dec. 13 (54) Camb

Pigeon Cove, Mass. July, 29-1885.

5. Ampelis cedrorum. – Common. Young on wing.

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Mass. (near Cambridge) 1887

January 30 30
February 4 30 – 17 flk – 20 15
April 6 25

Ampelis cedrorum.

Mass. (near Concord).

1887
May 23[6] 25[4] 26[8] 28[20]
June 2[40] 3[10] 4[10] 6[8(1lk)] 8[6] 13[2] 18[1]
July 2[6] 7[6] 15[4] 23[2]* 24[4]
Aug. 1[4] 9[2] 10[30] 13[20] 15[10] 17[20]*

* young on wing * flycatching over river

Ampelis cedrorum.

Mass. (Concord)

Ampelis cedrorum

Old birds feeding one another - Second arrival.

MAY 25 1887

Two, presumably a pair, sitting side by side on an oak limb. One caught a dragon fly and after holding it a moment passed it to the other who ~~after~~ slight apparent demur accepted and ate it.

I saw the first Cedar Birds here on May 23. I am very sure there were none about up to that date.

Mass (Winchendon)

1887
June 25[10] 26[6] (Nest building on 25th)

Ampelis cedrorum.

Mass. (near Cambridge). Spring of 1888

1888
Feb. 18 1lk
March 22[50] (one flock) 24[100]

Ampelis cedrorum

W. Middlesex Co. Mass.
June 25-30, 1889.

Ampelis cedrorum

West Townsend, Ashby, Mt Watatic --- In the low country scarcely more numerous than about Cambridge, but on the sides of Mt Watatic, especially in pastures grown up to young spruces, it was fairly abundant. With one exception all the birds of this species that we saw were in pairs.

Cambridge, 26 Feb. 1891

My dear Bowditch:

Happening to have Torrey's & my own monthly lists of birds at hand from Dec. 1887, I have collated the late autumn, winter and spring dates for the Cedar-bird. So far as can be seen from the observations of two persons only, it would appear that in the Spring of 1888 the Cedar-bird appeared about the middle of Feb. and ran on pretty regularly thro' March. Dates wanting for the late history. In the spring of 1889 neither of us saw a Cedar-bird till the last day of March from which date they were present with us till the end of April — then there is an hiatus till the 19th of May. In the spring of 1890 they were seen in the middle of Jan-

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June 25-30, 1889.

Ampelis cedrorum

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Yours sincerely
Walter Faxon

nary, thru scattering dates in Feb. & Mar. — then my record is resumed early in April and continues on pretty regularly thro' April & May, while Torrey has a tremendous chasm reaching to the 20th of May!! And so my well-laid schemes to arrive at a "generalization" gang agley! I hope that you, with your complete and time-honored record, will be able to show us the light.

You will observe that I have two Nov. records, Nov. 1, 1888 and Nov. 1, 1890.

Did I give you my Jan. 1891 dates for Carpodacus? ② ③ 24. 27. Belmont.

Winter Notes from Taunton, Mass.
J. C. Cahoon.

February 1st four Cedar Waxwings were seen on a tree on one of the principal streets, but only remained a few moments. A flock was also seen on the outskirts of the city during the latter part of January. O. & O. XI. May. 1886. p. 77.

Birds of Bristol County, Mass.
F. W. Andros.

Ampelis cedrorum (Vieill.), Cedar Waxwing.
Resident, common. Breeds.

O. & O. XII. Sept. 1887 p. 140

Bds. Obs. near Sheffield, Berkshire Cy, Mass. June 17-26, '88. W. Faxon

49. Ampelis cedrorum. CEDARBIRD.—Common.

Auk, VI. Jan., 1889. p. 45

Birds Known to Pass Breeding Season nr. Winchendon, Mass. Wm. Brewster

54. Ampelis cedrorum.

Auk, V, Oct,, 1888. p. 389

Bds. Obs. near Graylock Mt. Berkshire Co. Mass. June 28-July 16. W. Faxon

44. Ampelis cedrorum. CEDARBIRD.—Common in the cultivated lands.

Auk, VI. April, 1889. p. 102

An Early Spring.

Editor Cambridge Tribune: Does it really mean an early spring, the fact that crocuses and other early bulbous plants, in protected, sunny places, are already showing signs of early blossoming? We shall see. But there ıer signs that our thus far spineless will be unable, this year, to find a back A friend reports the trailing arbutus *repens*) already found in blossom at the nd on the fifth day of this month I saw of two dozen or more cedar-birds that s though they had come to stay. I be- lowever, that it is now admitted that the t of birds and animals — called by recent phers a sort of "transmitted habit" — absolutely unerring. But, since this appearance of the cedar-bird, or American waxwing, is a month or so earlier than its advertised or usual time of coming, it is well that a note be made of the fact. In 1886, I first saw them in Cambridge, February 21; in 1888, on February 25. The bird is easily known by its gentle notes of "twée, twée," as well as by its color — reddish olive — crested head, and yellow-tipped tail. The bird is deserving of our kindest consideration, notwithstanding a prejudice against it, born wholly of our ignorance of its real merit. It comes about as near to being omniverous as any bird we have in New England; but its chief food from now to "fly-time," will of course consist chiefly of seeds, the fruit of the mountain ash constituting no inconsiderable part of its diet. Even in summer time, I have no doubt but they eat ten insects to one cherry, the cherry probably being taken as part payment for the service it renders the gardener, as well as to prevent indigestion.

Camb. Trib. Feb. 8-1890 J. W. FREESE.

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Camb. Trib. Feb. 8-1890 J. W. FREESE.

34

Connecticut, June, 1893.

Ampelis cedrorum

June 3^{6} - 4^{10} Fairfield

" $5^{(5)}$ - 6^{6} 7^{6} 9^{hd} 10^{4} $11^{(2)}$ 12^{hd} } Saybrook

" 13^{4} 15^{hd} 16^{hd} 18^{2} 19^{2} $20^{(4)}$ }

" $22^{(2)}$ 23^{2} 24^{8} 25^{3} Andover

Rather more common than in mass. Found chiefly in or near villages, about farms & in pastures in orchards and shade trees.

Birds observed in Naval Hospital Grounds, Brooklyn, G. H. Coues

33. **Ampelis cedrorum.** CEDAR-BIRD. — Common.

Bull. N. O. C. 4, Jan., 1879, p. 32

Birds of the Adirondack Region. C. H. Merriam.

47. **Ampelis cedrorum** (*Vieillot*) *Baird.* CEDAR-BIRD. — Common summer resident nesting in dense alder thickets near water.

Bull. N. O. C. 6, Oct, 1881, p. 229

Arrivals of Mig'y Birds, Spring-1886, Central Park, N. Y. City. A. G. Paine, Jr.

March 15, *Ampelis cedrorum*, (619). Cedar Waxwing.

O. & O. XI. July. 1886. p. 109

Proc. Linnaean Soc. N. Y, 88-89

On the Former abundance of certain Species in New York Id. (1820-50) -- Lawrence

In October flocks of Cedar birds (*Ampelis cedrorum*) migrated south very regularly.

Auk, 8, Apr, 1889, p. 202

Birds of Washington Co. Oregon.
A. W. Anthony.

91. Ampelis cedrorum. CEDAR WAXWING.—Common throughout the summer.

Auk, 3, April, 1886. p.170

Albinism and Melanism in North American Birds. Ruthven Deane.

Ampelis cedrorum has been taken in some striking stages of plumage, the crest, wax appendages on the wings, and the yellow tips of the tail feathers retaining color, while the rest of the body bore a bleached out appearanee.

Bull. N.O.C. 1, April, 1876, p. 21

Descriptions of First Plumage of Certain North Am. Bbs. Wm. Brewster.

47. Ampelis cedrorum.

First plumage: female. Above generally duller cinnamon than in adult, with obscure streakings of dusky-buff; rump grayish-brown with a tinge of olive. Tail narrowly tipped with gamboge-yellow. Two secondaries on each wing slightly tipped with the red waxen appendages. Entire under parts brownish-buff, palest about anal region, deepest on throat and chin; breast and sides streaked thickly with cinnamon-brown. A dull black line, starting from the nostril, passes through the lore to the eye, where it terminates, embracing, however, the anterior half of both eyelids. From a specimen in my collection, taken at Upton, Me., August 14, 1874. I have seen specimens of this species in the first plumage with not only the secondaries wax-tipped, but several of the tail-feathers also. Nor is this horny appendage peculiar to the male, as has been stated, for several undoubted females before me have it fully developed. Much variation likewise obtains among different individuals in respect to the number and position of these appendages. One specimen (a male, Cambridge, March 21, 1870) has *every feather* of the tail conspicuously wax-tipped, in addition to nine of the secondaries on each wing, while another has the primaries (excepting the first three) tipped broadly with white, and in the centre of each white spot a smaller one of yellow.

Bull. N.O.C. 3, April, 1878. p. 64.

Brief Notes.

A Rare Bird.—While collecting in Williamsport, Md., the past winter, I was fortunate enough to secure a fine partial Albino Cedar Bird. A description of the bird may be of interest to some of the readers of the O. and O. Back, white streaked with blackish brown; head and breast, a mixture of reddish brown and white; throat, white; breast, light reddish brown, running into yellow on the abdomen; wings, white with a blackish bar running diagonally across and having the wax tips; tail, white with the usual yellow tips; feet and bill, several shades lighter than those of a normally colored specimen. These colors and mixtures combined to form one of the most beautiful birds that I ever had the pleasure to look upon.—*J. F. Whitting, Dorchester, Mass.*

O. & O. IX, May. 1884. p. 61.

Some Unusually Developed Birds Taken near West Point, N. Y. .. E. A. Mearns.

3. Ampelis cedrorum, (Linné) Sclater. CEDAR-BIRD. — I have been so struck by the great variation in different specimens of this species, in regard to the red wax-like appendages, that I have taken particular pains to procure a large series of specimens illustrating this difference. In this series I can scarcely detect any sexual difference in that respect, except that the particularly well-developed specimens are all males. In the normal plumage the waxen appendages are confined to the tips of the secondary remiges, but in my cabinet are several specimens which have them affixed to the *primaries*, and in several instances even to the *rectrices;* but they are usually small and few in number. One specimen has several of these attachments to the primaries, which are nearly as well developed as those on the secondaries. But the most remarkable specimen is a handsome male (No. 545, ♂ ad., April 11, 1875, Highland Falls, N. Y., E. A. M.), having these ornaments attached, not only to each of the secondaries and *three of the primaries*, but each of the rectrices is embellished by a well-developed red appendage. Several other specimens have large red tips to each of the rectrices; and one (No. 1558 ♂, Feb. 23, 1878, E. A. M.) *has five* of its primary remiges (5th to 9th) tipped with yellow. Professor Baird † says: "A specimen from Guatemala (No. 50,455 ♂) is almost identical with examples from the United States, but differs in having a small spot of yellow at the tip of each primary; also there are red appendages on the tip of a few tail-feathers, as well as the *longest feather of the lower tail-coverts.*" ‡

While speaking of this species, it may be well to add, that in specimens taken in worn plumage, late in summer, the colors are very much bleached, all of the colors being very much paler; the white band across the forehead is very much broadened, and the black of the chin much lightened. The top of the head and neck has an ochraceous suffusion, and the cinnamon-color of the back extends into, and partially subdues the ash of the rump.

† Baird, Brewer, and Ridgway, Birds N. Am., Vol. I, p. 401, 1874.
‡ Italics my own.

Bull. N.O.C. 3, April, 1878, p. 70-72.

Science Vol XXI No 528 March 17, 1893 pp. 144-145.

A PRESUMABLY NEW FACT RELATIVE TO THE CEDAR WAXWING (*AMPELIS CEDRORUM*), WITH REMARKS UPON THE IMPORTANCE OF A THOROUGH KNOWLEDGE OF FIRST PLUMAGES.

BY EDWIN M. HASBROUCK, WASHINGTON, D. C.

It is considered by every one that the individual waxwing possessing wax tips on both secondaries and rectrices is in the highest development of plumage, while a high development of plumage in any species whatever is usually accorded to the older birds.

Coues states that, "Specimens apparently mature and full-feathered frequently lack the wax-tips"; that "their normal appearance is unknown," and that "birds in the earliest known plumage may possess one or more." Beyond this little appears to be known.

In a somewhat extensive series of waxwings in the National Museum, in my own and other collections, appendages on the wings were developed in forty-five, fifteen displayed the ornaments on both wings and tail, while the remainder, apparently adult birds, were entirely unadorned. (It might be well to state that the females as well as the males possess these tips, although less frequently, while some specimens examined showed the ornaments on both wings and tail.) Now, the natural conclusion from this would be that those birds possessing wing-tips only were older than those having none at all, while the fifteen on which both wings and tail were adorned were even older and were in the highest perfection of plumage. This is disproved by the fact that four birds of the year still in the striated plumage, taken in August, September, and October, respectively, display very distinct tips on the secondaries; and if on the secondaries at this early age when older birds possess none at all, why should they not also appear on the tail-feathers? The supposition of older birds only being adorned being disposed of, the question arises, When do these horny appendages appear? and on this I am able to throw considerable light.

It was in the summer of 1884 that I was spending a month at Port Byron, N. Y., when I ran across a nest of the waxwing, containing four young, every one of which had the wax tips on tail and wings perfectly developed. These birds were nearly fledged, although unable to fly, and I had good opportunity to observe them. Not being interested in collecting birds at that time they were not preserved, a circumstance to be regretted, but the full import of these appendages being developed in nestlings was appreciated.

The following table for the calendar year shows the conditions of specimens examined. So regularly and so nearly is it completely filled that it is evident that an examination of a larger series would undoubtedly fill the gaps.[1]

Month.	Wings.	Both.	None.
Jan.	♂		♂ ♀
Feb.	♂	♂	♂ ♀
Mar.	♂ ♀		♀
Apr.	♂ ♀	♂	♂
May	♂ ♀	♂	♂ ♀
June	♀	♀	♂ ♀
July	♂	♂	♂
Aug.	♂ ♀ ♂im	♂	♂ ♀
Sept.	♂ ♂im		♂ ♀
Oct.	? ♂im		♀
Nov.	♂		♂ ♀
Dec.	♂		♂

With this evidence it is apparent that these handsome ornaments are by no means a sign of age, but are, on the contrary, a purely individual development, appearing sometimes in their highest perfection in the nestling, while in an adult they may be entirely absent or barely beginning to appear; or again, appearing a few months after attaining first plumage, to go through a regular course of growth and development. Inasmuch as an individual with wax on both tail and wings is exceedingly rare, and the August and September birds are just beginning to acquire the tips it would be interesting to know just how often this development in the nest occurs, and this is published mainly with the hope of eliciting further information on the subject, and of prompting those in the field to be on the watch the coming season.

The importance of thus studying the first plumages cannot be too highly estimated, for not until comparatively recent years has a careful and thorough study of the life-history of each and every one of our birds been deemed of any great importance by ornithologists. Of late, owing to the discovery of numerous errors that had crept into our nomenclature, careful attention has been paid to a species from the time of its advent into the world to a period when beyond all doubt it has reached its maturity. To the collector who accumulates a series, it is only too apparent how great is the difference between individuals, and that his series is not complete until each and every phase of plumage from various widely separated localities is represented.

Late in the season, while the full migration is at its height, a bird is secured which for the life of him he cannot name; in vain he searches the literature, compares specimens, and puzzles and worries only to find it at last an old acquaintance flitting under new colors. I have in mind a young man who, although not an accomplished ornithologist, ought to have known better, and who essayed to publish a list of the birds of the locality in which he lived. One winter he secured a bird entirely unknown to him, and in his dilemma sent it to the Smithsonian for identification; on its return the label bore: "American Goldfinch in winter plumage." This may be a little foreign to the subject but it shows how necessary was a thorough knowledge of the life-history of the species. Nor was it so very long ago that the "Gray Eagle," which for years was accorded specific rank, was found to be but an immature phase of *Haliœetus leucocephalus*, while *Oidemia perspicillata trowbridgii* was shown to be but a seasonal variation of *perspicillata* proper. Even to this day it appears not to be generally known that the Golden Eagle takes from three to five years to acquire its full plumage; that the Bald Eagle attains his highest plumage at the age of three, the various intermediate stages being known as the Black Eagle, Gray Eagle, etc., and that the Little Blue Heron is pure white the first year, mottled and variegated with blue in every conceivable manner the second, and attains the perfection of its plumage only at the age of three; yet such are the facts. These are but isolated cases, while any day may bring about the unification of some two forms which at present are considered at least sub-specifically distinct.

[1] In this table an attempt has been made to show merely that both sexes are adorned for each month in the respective columns. In a number of instances several individuals were found for each.

Auk, XIV, July, 1897, pp. 277-8.

Ampelis cedrorum (*Vieill.*).

Some Abnormal Color Markings.

An adult Cedar Bird (No. 5481, Miller collection, Providence, R. I., February 18, 1886, J. M. Southwick), otherwise normal, has the flight feathers in each wing spotted subterminally with dull grayish white. These markings are as nearly alike on corresponding feathers of the opposite wings as is ever the case with a normal bilaterally symmetrical color pattern. On the distal primary the spot is very indistinct and nearly confined to the inner web where it occupies a space 3 mm. long (measured at the shaft) and 4 mm. from the tip of the feather. Toward the inner margin of the web the spot narrows rapidly and disappears without reaching the edge of the feather. On the outer web there is the faintest possible suggestion of a grayish trace close to the shaft and opposite the spot on the inner web. On the second and third primaries the spots become more distinct and extend nearly to the margin of the inner web. On the third primary the spot is 5 mm. long and 5 mm. from the tip of the feather. On the fourth primary in each wing the spot appears distinctly on the outer web, and from here on the portion of the spot on the outer web becomes larger and more conspicuous, that on the inner web at the same time diminishing until on the proximal true flight feather there is no mark at all on the inner web. The penultimate feather shows a trace of white on the inner web in the right wing, but none in the left, and the last spot is slightly larger in the right wing than in the left, otherwise the markings are exactly alike on the opposite wings.

While these markings have all the characteristics of a normal color pattern there is no known relative of the Cedar Bird with wings spotted in an analogous manner. G. S. Miller, Jr.

fore me, the set of four is somewhat larger than any of the five sets, measuring: Sets of four, 1.53x1.25; 1.50x1.28; 1.55x1.31; 1.53x1.27. Set of three, 1.45x1.20; 1.40x1.22; 1.42x1.22. The above being Screech Owls. The following California Mottled Owl, measuring: Set B, of three, 1.44x1.18; 1.42x1.20; 1,28x1.20. Set S, three, 1.42x1.21; 1.40x1.16; 1.42x1.16. Set E, three, 1.37x1.20; 1.38x1.22; 1.42x1.16. All are of the same glossy, crystal white peculiar to the Owl's eggs.

I give here a record of my first sets for each season, during six years: March 18th, 1880; April 24th, 1881; April 11th, 1882; March 24th, 1883; May 13th, 1884; April 12th, 1885. It will be seen that the year 1884 was later than the rest, the Spring being very wet all the hollows in the trees were filled with water.

I found one the past Spring that had taken up quarters in an old wood rat's nest placed on a limb of a Bay tree, some thirty feet from the ground. A large mass of dead leaves from the tree had been put together, and a hollow formed in the centre, lined with feathers of fowls and birds.

I took a young Mottled Owl from some boys two years ago, and put it in my greenhouse with a young Sparrow Hawk. They seemed to get on well together except in feeding, when the young Hawk wanted all the attention. When he got his portion he would take it in his claws, fly down in a corner on the long table, and spread his wings as though to hide his food. The Owlet would snap at his meat when a piece was held up to him, make a grab, shut his eyes and swallow it down with great satisfaction. The hot weather was too much for them in the hot house, with all the windows out, and I found them both laid out one afternoon.

"The Cedar Bird."

(*Ampelis cedrorum, Vieillot.*) *Gray.*

BY FRANK R. RATHBUN.

This bird belongs to the family of Waxwings, of which we have but two examples on this continent, the other being the Bohemian Waxwing or Chatterer, a somewhat larger bird, but strikingly similar in many respects. The Cedar Bird is a true tramp, breeding anywhere in his peculiar lazy way, and roaming from Florida to the Red River country. He is not, however, one of the diffident and solitary kind, but of a social cast, and may nearly always be seen consorting with members of his own kind. Whenever his "dreary whisper," his "wheezy" whistle is heard, a superficial search will almost invariably find an encampment of the brotherhood. We have called him a true tramp, but we might qualify this statement somewhat by dubbing him a tramp of the gypsy clan, so nomadic and erratic are his movements and visitations. The heat of Summer and Winter's rigor have no depressing influence upon this indomitable bird. His characteristic fearlessness and independence is stamped upon his features, and evidenced in his striking profile. His sinister aspect, due to its peculiar markings, has always seemed to me to be surrounded with an eerie halo, with an atmosphere suggestive of the weird which is inexplicable. The sun neither incites nor delays his wooings, for sometimes the first young of the year are not seen until the month of August. In fact, he seems to take so much pleasure in his gregarious habits as to be unmindful of his domestic affairs.

The Cedar Bird is known and recognized as the Carolina Waxwing and the Cedar Waxwing. He also has such local names as the "Ring-tail" and the "Wax-bird," but is universally known in the north as the "Cherry Bird." The first name has been given him from the yellow color which tips the ends of his tail feathers; the second, from the peculiar red and horny appendages of his inner wing quills which much resemble red sealing wax; and the latter, for his love for "cherry-ripe," so tantalizing to the horticulturist.

This bird is of a very social, amiable, and very affectionate disposition. I had the good fortune to become intimately acquainted with a pair of them the past season. They had selected for their nesting place the bough of a soft Maple tree, some twelve or fifteen feet from the ground. The tree stood close to the sidewalk of the street, and immediately in front of my gate. From my breakfast table I could easily watch their labors. The situation was very public and the street a familiar thoroughfare of the boys and girls as they went to and from the public school. The birds had but one object in view, apparently, and that to build, brood and bring up. I often stood immediately beneath the scene of their toil, without for a moment inspiring fear or interrupting their labors. That they saw me was evident, for as they came to the spot alternately with materials, they would pause for an instant and peer at me with their gypsy eyes from beneath their sable frontlets, and seemingly satisfied that it was *only me*, proceed with their work of construction. I could but fancy they knew me and sought my protection, so trustful did they seem. When the female began to incubate her liege seemed very attentive and kind, bringing food and occasionally cheering her labors with a low whisper. Their bliss, however, was interrupted after a few days,

by the inherent destructiveness and mischief of some ruthless boy, who had, as I was led to infer from the scattered embryos and shells upon the walk beneath, either stoned or poked them from their nest. The pair disappeared and were never seen more.

The horticulturist has long eyed these "cherry birds" with suspicion, if not with hostility, for their peculiar fondness for garden fruits and cherries. They are, however, very beneficial birds, much more so than injurious, and for this reason should be protected and tolerated. They destroy vast numbers of harmful bugs, caterpillars and canker-worms. Occasionally they awake from their lethargic moods and launch forth on vigorous wing after flying insects.

While the Cedar Bird is to some extent a Spring and Autumn migrant, he does not hesitate to brave the rigor of our northern winters, where he collects in communities amid the thickets and groves. There they feed on various berries, especially those of the Cedar and other small clinging fruits. Occasionally they sally forth from these retreats and enter the cities and villages and feed upon the berry clusters of the ornamental Mountain Ash to repletion, sometimes spending the entire day in the tree. This is not unusual, for I have observed them thus for successive Winters.

The plumage of the Cedar Bird is strikingly soft and smooth, and the colors of the body are full of rich and insensible blendings, which shade from an ashy color on the rump through cinnamon to a rich purplish cinnamon on the breast and head; and through yellowish or yellowish buff on the belly, to the white of the under tail-coverts. He has a prominent crest of cinnamon drab and a sinister stripe of velvet black across and above the eyes, which is brought out in strong relief against the prevailing body color, by a marginal line of purest white above, and a spot of the same color at the lower base of the bill.

The inner wing quills and occasionally the tail feathers—which are each finished off with a touch of chrome yellow—terminate in peculiar horny-like appendages strangely suggestive of red sealing-wax. Sometimes these singular adjuncts are wanting, usually in the young birds.

This bird is from six to seven inches in length, and the eggs, which are laid in a carefully constructed nest of mosses and various fibrous materials, are from three to six in number, and have a pale or livid bluish ground sharply and thickly dotted and blotched with blackish spots. Average specimens of the eggs measure about eighty-two by sixty one hundredths of an inch.

O.&O. X. Nov. 1885. p. [illegible]
174 – 175.

But one of the most curious finds I have had this season is noted on the 18th of June, a newly constructed nest of a Cedar Bird, (*A. cedrorum*), in an orchard tree about seven feet from the ground which contained one egg. Passing that way on the 23d, imagine my surprise to see a Robin sitting upon the nest and the Cherry Bird upon a limb near. The Robin did not move until I had nearly got her in my hand when she flew off and disclosed to view four eggs of the Cherry Bird's and one Robin's egg. They were all fresh. Whether the Robin had been robbed before she had laid her complement of eggs or whether she lacked forethought in providing a receptacle for them is for the readers of the O. & O. to judge. Should like to hear from others on this question.—*F. W. Andros, Taunton, Mass.*

Curious Nesting.

O.&O. IX. Dec. 1884. p. 151-152.

Birds Tioga Co, N.Y. Alden Loring

151. Cedar Waxwing. Common. This bird is very useful in one way and quite destructive in another; useful, because up to the first of July their food consists of flies and insects; perched on the top of a tree they quietly wait for their prey to pass, when they dart out and often catch three or four flies before returning; destructive, because when cherries get ripe their food consists principally of them. The Cedar Bird arrives from the south in flocks about the middle of March. Near the middle of May, immediately after mating, the nest is built. This is placed on a horizontal limb from twenty to thirty feet from the ground, and is composed of dried grass and weeds, and is lined with fine roots, pine needles, etc. It is deeply hollowed, and contains four to five eggs of a light bluish color with a slight purple tinge, marked more or less with blotches and spots of black and more obscure lines of purplish-brown. The measurement is 7-8 in. by 19-30 in. About the first of September these birds gather in flocks of fifty to seventy-five individuals. At this time they live on the berries of the mountain ash. As the last of this month expires they leave for the south.

O. & O. XV: June, 1890, p. 82

Ampelis cedrorum AS A SAP-SUCKER.— The Cedar, or Cherry-Bird seems never to be very abundant in this section of the State; but early in the spring, when the birds first arrived from the south, I saw quite a large number of them, and observed what was to me a new habit. They resorted to the maple trees for the purpose of gathering the sap flowing from wounds made by the ice in the bark of the smaller branches. The birds would grasp a branch or twig with their claws, and partially swing themselves under it and drink the sap where it hung in drops. For a week or more these birds were so plentiful and so intent upon their sap-gathering that one was almost certain to find a flock wherever there was a group of maples. I took considerable pains to ascertain if this habit was shared by any other bird, but did not observe a single instance. In the Eastern States I have often seen squirrels drinking sap from the branches in this way, but never before saw it done by a bird.— F. E. L. BEAL, *Ames, Iowa*. Bull. N.O.C. 7, Jan. 1882, p. 3-4

Young Cedarbirds and Great Crested Flycatchers in Captivity. — While in Tamworth, N. H., last July, I imprisoned two broods of young birds when just ready to fly, with a view to sceing what their parents would do about it. One brood consisted of five Cedarbirds and the other of four Great Crested Flycatchers. I imprisoned the Cedarbirds on July 10, placing them in an ordinary wire canary cage. Their cries, when being caged, brought the mother, who first flew in my face and then perched on the outer edge of the cage as it rested on my knees. I put the cage very near the house, and it was only a short time before the parent birds began consoling the young with cherries (*Prunus pennsylvanica*). During the twelve days of their captivity the young were supplied with 8400 cherries, or one cherry a bird every six minutes. I ascertained the number by counting and weighing the stones left by them in the bottom of their cage. On an average the old bird or birds made 140 visits a day, bringing five cherries, each time. One was carried in the beak, and the others were jerked up from the throat one by one until all of the five young were fed. At their release the young were so tame that they returned to take cherries, from my fingers, but the old birds soon enticed them away.

File under Cedar-bird

The young Great Crested Flycatchers were taken from their cavern in an apple tree on July 21, and placed in a wire cage which I hung in the next tree. I could see it from my barn door. The old birds would never go near the young if I was in sight. Concealed, I watched them with a glass and occasionally saw the young fed. They were given harvest flies, dragon flies, and various beetles, and also smaller insects of which they left no fragments. I kept them caged until early in August. They were as wild on the last day as on the first, and if the parents changed their feelings towards me, it was only by intensifying their hatred. —FRANK BOLLES, *Cambridge, Mass.* Auk, VII. July, 1890, p. 290

The Oologist. 1635. *The Cedar Waxwing Eating Potato Bugs.* By George W. Vosburg. *Ibid.*, p. 237. Auk, VII. Jan. 1890. p. 84.

t. 1487. *The Waxwings.* By W. L. Kells. '*The Sunny South Oölogist*,' Vol. I, No. 1, March, 1886, pp. 1-2. Auk, VII. Jan. 1890. p. 80.

396. *Notes from St. John, N. B.* By Harold Gilbert. *Ibid.*, p. 134. —Notes on the Cedar Bird, Golden-winged Woodpecker, Robin, and Bohemian Wax-wing as winter birds, etc. O. & O. Vol. VII

Progne subis

Progne subis.

1889

April 20 1 (Bent) - A. 21 1 (Faxon) 1889. L. 14 1 ♂ (Faxon) 15 1 ♂ - 16 2 ♂ - 17 3 ♂ - 18 3 ♂ 2 ♀ - 19 do - 20 do - 21 do - 22 no count - 23 3 ♂ 3 ♀ (Bird box in Lexington village - W. Faxon) - Concord 24 7 - 26 15 - 1891

May Cd. 5 4 - Eg. 10 1 - Cd. 17 4 - Eg. 18 1 - 1889. Wm. 16 heard - Cd. 30 10 - Way 31 4 - 1890 Cd. 22 6 - Cd. Way 23 hd - Cd. 24 6 - 1891.

June Cd. 1 2 - Way. 16 2 - Cd. 21 4 - Cd. 22 4 1889. Cd. 1 10 - R. 7 h. - S. 10 h. - Wm. 21 2. Fal. 24 (3) - 25 (5) - 1890

July Eg. 8 1 ✱ - 1889. Fal. 6 (5) 1890

August Eg. 7 1 ✱ - Cd. 20 4 - 1889.

Sept Wav. 13 1 ad ♂ mig. (Faxon) 1890. 7 1 juv - solitary bird flying on Great M. Concord 1892. 4 1 juv Concord. 1893.

April 5 (4) - 18 (2 ♂♂) - 25 1 ✱ - 30 1 ✱ Concord 1892

Bedford 16 1 (Faxon) 22 1 ✱ - 24 ♂ - 28 (2 ♂) - 29 6 - 30 1 ✱ - Concord 1893.

May 2 2 - 3 8 - 4 - 5 2 - 7 - 8 - 9 (6) 10 6 - 11 - 12 - 13 6 - 14 4 - 16 - 17 - 18 10 - 19 12 - 22 3 - 23 6 - 24 8 - 25 4 - 28 1 - 29 6 - 30 Concord 1892

" Lincoln 9 (10) (bird house) 1 to 25 omitted accidentaly. 26 4 - 27 3 - 28 4 - 29 3 - 30 2 - Concord. 1893

" 1 1 ✱ 3 hd 4 2 5 hd 7 3 (Concord) 12 hd 13 6 14 6 (Concord) 20 1 - Cd. 21 4 (Cd.) 26 6 27 8 28 4 (Concord) 1894

June 2 hd - 4 hd - 6 1 - 7 1 - 12 4 - 18 2 - 19 2 - 20 hd - 21 hd - Concord. 1892.

" Concord 26 2 - 27 1 - 28 1 - 30 2 - 1893. P. subis.

" Wareham 10 colony in village - 1894

July 1 2 - 2 4 - 4 1 - 5 1 - 8 1 ✱ - 9 1 - 10 6 - 11 1 - 12 (6) at box - 14 2 - 15 2 - 17 2 - 18 3 - 19 2 - 20 hd - 21 2 - 23 - 24 - 25 - 26 3 broods 5-4-2 young with parents - 27 (15) - 28 (12) - 29 (20) - 30 - 31 15 (about bird box) Concord. 1892. } 1892

1 hd - 3 1 - 5 4 ✱ - 7 12 (at boxes) 12 10 (at boxes) 13 3 - 14 (9) ✱ (at box) 17 1 ✱ - 18 hd - 19 1 ✱ - 20 1 (at box) 21 (brood in elm at Bulrickes) 22 10 - 23 15 - 24 - 27 15 - 28 10 - 29 20 - 30 3 ✱ - 31 (6) at box Concord 1893. Milton 8 (2) soaring high - Cd. 20 hd - Cd. 25 1 1894

August 1 1 - 2 4 - 3 8 - 13 2 - 15 2 - 17 1 - 25 (2) - 26 1 - 28 (4 juv) Concord 1892

" 1 6 - 2 hd - 3 hd - 4 hd - 7 1 ✱ - 10 1 ✱ - 11 1 - 20 1 - 21 1 juv - 24 (4 juv) - Concord. 1893.

" Cd. 5 2 juv - Cd (Ballis H) 12 (4)

Progne purpurea

1889 Mass.

May 10 Cambridge. – A single bird flying over my garden — Flying over my garden.

" 18 " " " " " " " " warbling.

June 1 Concord. – The Sparrows must have driven nearly all the Martins out of Concord for I saw only a single pair on Dead Meadow during the entire day although it was cloudy & misty and Swallows numerous then skimming close over the grass. — Nearly gone from Concord.

" 16 Wayland. – Two flying over the river at sunset dipping down to drink.

New Hampshire

" 18 Wolfeboro. – About ten pairs breeding in a box raised by a pole only about 8 ft. long above the gable end of a barn. Three or four times during the day I saw the birds alight in the tops of small leafy trees, usually pear trees in a neighboring garden but also in sugar maples near the Lake shore. They would sit still for a few minutes then take wing & after a few wheels return & again alight. In any instance the ♀♀ only, alighted: although their mates were often with them & kept circling about their perches. — Alighting in trees

June 21 Concord. – Apparently only two pairs breeding in the town three just above the one arch (new) bridge.

July 8 Cambridge. A ♂ flying high over my garden warbling at about 10 A.M. Can the adults have begun to migrate? — Adults migrating

Aug. 5 Lexington. "Lexington friends tell me that the Martins left their houses about three days ago. I could find none near their boxes this morning" (Jason Cat. Aug 8-1889) — Leave their houses.

Progne subis

1890 Mass.

Sept 13 Waverley. - "I was surprised to see a full-plumaged ♂ Purple Martin flying over (yesterday) against a strong south wind" (W. Faxon letter Sept. 14) Solitary ad ♂ mig. late.

1891

April 14 Lexington. - "One male Purple Martin arrived yesterday at 5.30 P.M. It is the earliest date (April 14) I have for this bird. I don't understand his arriving alone. He has taken one of the compartments in that sparrow-infested box and sits on the piazza of the box surrounded by Passer domesticus as peaceably as a dove beside its mate. There has not been the slightest attempt on the part of the sparrows to molest him altho. they outnumber him 12 or 15 to 1. I hate the English Sparrows as much as anyone, but the truth must be told. Fiat justicia ruat cœlum" (W. Faxon letter Apr. 15-1891); "I have lived with them one summer and I know that every summer since the Sparrows came the Martins [at Lexington] have reared full broods without molestation ××× The Lexington Martins have it all their own way, take their choice of rooms and leave the rest to the Sparrows" (Faxon Ct. Ops. 23) Earliest arrival on record. Fraternizing with House Sparrows. Denial of alleged destruc. of young by House Sparrows.

May 5 Faxon tells me that there are now four pairs of Martins occupying the box next his house in Lexington. They arrived in the following order: a ♂ April 14, a second ♂ on the 16th, a third ♂ on the 17th, two ♀♀ on the 18th, a third ♀ on the 23rd and finally a pair together. Most of them appeared or were first noticed in the morning. It was very cold on the 25th and 26th and all but one pair left the box and were missing two days returning the 27th. This morning the mercury fell, in Lexington, to 33° Fahr. The Martins (who sleep each night now in the box although they have not begun building yet) rose late and before emerging peeped out of the holes a number of times and then drew back. Finally they all came out and perched in a row on the roof of a piazza where they got the sun & were sheltered from the cold N. W. wind. Arriv. on at a time. Sleep late cold mornings. Sleep in bird house from arrival.

Massachusetts,

1892.

Progne subis

July. 26. Concord. Just above the swimming place I passed three broods of young Martins (5, 4 and 2 birds respectively) which were sitting on the topmost dead branches of tall elms and maples over the river. This habit in the young Martins in invariably choosing a high perch distinguishes them from the young of other Swallows. The parents were flying about and taking food to the young. Once I saw a young bird fed on wing the parent meeting and rising with it after the manner of the Eave Swallow. The young were very noisy uttering especially when on wing a loud rather unmusical pew.

Progne rubis.

I892. Mass.

July 27. (NO.3) Concord.- Numbers of Purple Martins again spent the day in the tall trees near the swimming place. The brood seen there yesterday were united into one flock to-day. I counted ten birds in one tree all young. The flock took wing and went off to the S.W. as I was passing on my way home. Young Martins

July 28. Concord.- Immediately after breakfast I started for a short walk As I was passing the Burrills' the calls of Martins attracted my attention and looking to the eastward I saw a flock of about a dozen of these birds flying in circles at a height of several hundred feet over the vineyard of Mr. Merwin's farm. They seemed to be excited about something and the cause was soon explained when a small Hawk which looked exactly Fako columbarius suddenly appeared directly among them, coming from I know not where. For a moment or two it sailed about with them as if it meant them no harm but merely wished to join the flock. None of the Martins as far as I could see, tried to avoid it but all continued their slow, easy, circling flight. Perhaps they were too frightened or bewildered to attempt to escape or more probably the majority were young, unaware of the fearful risk they were running as they brushed past the strange bird in their midst.The latter, secure of his prey, doubtless found a certain savage pleasure in prolonging the moment of his triumph as a cat plays with her mouse or bird before ending its sufferings. But at Young Martins caught by a Hawk.

Progne rubis.

1892. Mass.

July 28. Concord.- length there was a sudden dash, the flock were scatter Young
ed in every direction, and a single Martin closely pursued by Martin
the Hawk disappeared behind a cluster of trees. The next instant I caught
heard the screams of the poor victim, at first loud, then fainter, by a
and finally, after a moment of silence, coming again in Hawk.
feeble dispairing tones as the unfortunate creature drew its
last breath in the grasp of the sharp and relentless talons.

July 29. Concord.- The Martins were again assembled in the elms and Young
maples near the swimming place. They were all together and I Martins.
counted twenty, most of which looked like young. It is singular
what keeps them in this place. I saw only three lower down the
stream.

Sept.7. Concord.- A solitary young bird flying about over the meadows, Purple
calling, at 7 A.M. Martin.

Progne subis.

Concord, Mass.
April, 29. 1893.

There's a fine [illegible] of Martins in the boxes above [illegible] the
rashawtuck bridge as tuned as many House Sparrows!
The Martins are evidently being crowded out.

Progne subis.

Concord, Mass. Still in Concord.

1893. The Martins have not left Concord yet. Indeed they have
July 30. been exceptionally numerous during the past week. Most of them appear to be young but I heard the song thrice to-day. The broods of young perch usually in leafy tree tops. Both young and old feed chiefly over oak woods and visit the river and meadows much less often than do the Swallows.

July 31. On my way back from town this morning I passed near Mr. Edward Hoar's garden. To my surprise there were at least six Martins sitting on the ledges of his bird house or peeping out of the holes. This colony must have bred late this season for the birds left the boxes on the river bank beyond Nashawtuck Bridge nearly a week ago and broods of young Martins with their parents have been scattered over the whole country about Concord for ten days or more. They seem to be unusually numerous and I think they must have been unusually successful with their young this year. Their voices sound pleasantly these still warm days coming from out the sky over meadows, fields and woods. Go where I will the call of the Martin is constantly in my ears whereas in May and June I see or hear but few away from the town. The old males are still "singing" freely.

Aug.4. The Martins are getting scarcer but I heard at least one to-day. The bulk left us about the 1st of this month.

Aug.16. Have all gone. Saw last one on the 11th.

Progne subis.

Peterborough, New Hampshire.

1898. July 5 to Aug.15. Two or three seen flying over the village July 25th and 28th. Also heard calling at Ben Mere farm August 1st.

Concord, Mass. Early morning song.

1899. June 8. Awaking just before daybreak (at 3.20) this morning, before the first Robin had uttered his first call, I heard, as I was lying in bed at the Keyes', and for the first time in my life, the song of the Purple Martin. It was a monotonous er-e-er-itty-er-e repeated rapidly without pause or interval many times in succession. As nearly as I could make out there were two or three birds singing at once and they kept it up for at least eight or ten minutes. The sound came from the direction of the Hosmer's meadow and always from the same point leading me to conclude that the birds were perched, probably in the tops of the large elms that line the road which skirts this meadow. Faxon heard this same song when he was living at Lexington a few years ago. If I remember rightly he told me at the time that it was never uttered excepting at daybreak.

Dec. 16 May, '91

My dear Brewster:

Either the 9.15 train for Franklin Park (Eastern R.R.) or the 9 train for Oak Island (Revere B. R.R.) will suit me next Tuesday. If you have any choice please send me a line. If I don't hear from you I will be at Eastern Station at 9.15.

I don't find the Least Flycatcher or the Nashville Warbler on yr last year's M.V. list. You have the following land bird not on our this year's list: Vireo olivaceus, Ammodr. passerinus, Coccyzus amer., C. erythropth., Myiarchus, Contopus virens, Anthostomus. On the other hand we added on this trip: Dendroica virens, Petrochelidon, Empidonax min. (W. B.), Molothrus, Trochilus, Dryobates pubescens, Megascops, Accipiter velox, Tympanuchus, Bonasa. Wilson gives an interesting account by a Mr. Mitchill of the habits

of the Heath Hen on Long Island in early part of this century. He (Mitchill) asserts that these birds preferred the brush to the taller shrubbery & trees — that they took to the latter when hunted — that in Pennsylvania, when a tract of bush grew up to trees the Heath Hens all disappeared from that tract.

We now have twelve Martins in the box — This is a larger no. by far than ~~that~~ in ~~for the~~ previous summers. They are now busily building. They go for material (hay, or) to a ploughed plot beyond the limits of this place. The ♀ does all the work, but the ♂ invariably accompanies (or rather follows) her on every sortie. In the absence of one pair, another male will often scoot round the corner of the box & steal some of his neighbor's nest, giving it to his mate who quickly carries it into her compartment. This is a reversal of Adam and Eve's order of stealing apples! It (like everything the Martins do) is done so prettily that you can't help forgiving the sin. They seem never to quarrel & it is a pretty sight to see them in the morning sitting in pairs — each pair at the door of his own room. It seems to me that they were all paired from the first, although they came straggling along to Lex. one by one. There have been no signs of courtship or of rivalry among them. My recent spring dates for Wh-cr. Span. are: May 22, '88 (2 in Concord, one in Sudbury). May 16, '90, one, E. Lex. May 14, '91, one, E. Lex. B. Torrey: May 11, '88.! C. E. Faxon: about May 13, '90, Jodh Brookline. May 24, '90 Purgatory Swamp, Dedham, one.

Recent arrivals: ——

Sylvania pusilla 14, 16.

Dendroeca maculosa 15^{2}.
Sylvania canadensis 16^{1}. 16^{1}.
Cistothorus stellaris 15^{2} Rock Md.
" palustris 15^{1} Fr. Pd. sw.
Coccyzus erythrophth. 15^{2}. 16^{2}.
Passerina cyanea 16^{4}.
Dendroeca blackburniae 16^{2} Mystic Pond
" castanea 16^{2} " "
" striata 16^{2} Mys. Pd. & Lex.

The Baybreasts were very near the spot where I saw them May 19, '86. They were in Betula papyracea — must have felt at home! In '86 they were in Acer rubrum.

Yrs sincerely
Walter Faxon

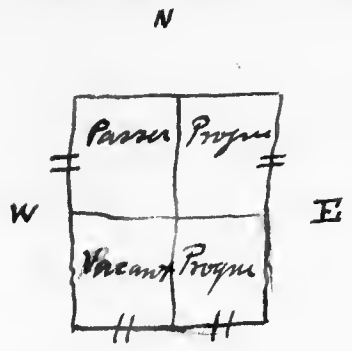
Lexington
29 May, 1891

Dear Brewster:

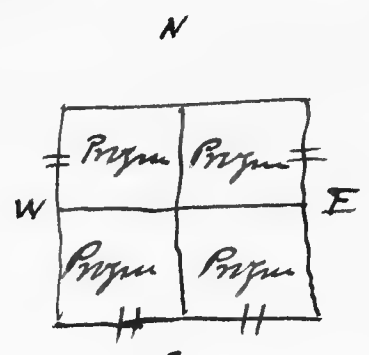
I sent you by mail yesterday a Yellow-bellied Flycatcher from Tophet Swamp. It was emitting the "pea" note. I heard the same note in Oak Island on the 26th but was driven out by the mosquitoes without seeing the bird. On the morning of the 27th I saw a beautiful ♂ Mourning Warbler on the roadside — Lake St., Waltham, near Mead's Pond. I have been very lucky in seeing the four rare Warblers — Cape May, Bay-breast, Tennessee and Mourning in one

season.

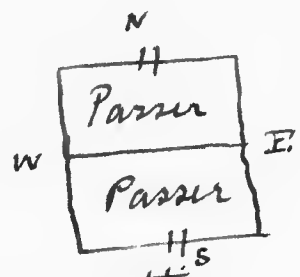
I think the ♀ Martins are now sitting, as they are in the big knot of the time. The males spend most of the time on the piazzas like faithful but lazy husbands. When it rains they sit with their tails directed outwards over the piazzas. The last touch in their nest-building consisted in carrying in *fresh* *green leaves* — for lining, I suppose. There was a great deal of skirmishing material from one another's nests during a neighbor's absence, while they were building, but I have never seen them quarrel. The assignment of rooms is as follows: —



1st floor



2d Floor



attic

Early in the season the vacant room on the SW corner, lower story, was occupied by a pair of Sparrows, but they deserted it, apparently oppressed (not aggressively) by the number of Martins congregating on the piazzas of the S. side of the box.

I doubt if a Martin-house ever

ever watched more closely than this one has been watched by me. It is directly in front of my window, and of my bed from which I watch the birds for an hour or more before I rise in the morning. I have never seen the least interference between the two species of birds. The colony is as absolutely harmonious as if it were composed of but one species of bird. Except when the Martins come & took possession, and even then it was done without any contest, as I wrote you before.

It seems a little singular that I have never seen the Martins copulate. I have often seen a ♂ pursue, overtake and apparently grasp the ♀, on the wing, but it did not look like coitus. I am inclined to think that pairing is consummated in the box. A highly civilized bird!

In a future letter I wish to tell you of some strange occurrences in our old bird-house in our back garden, but I wish to follow the case further first.

Last evening I walked out on the Woburn road & heard the first Whip-poor-will concert that I have enjoyed for years. There were at least six singing at once. We have a Cat-bird

Tophet swamp yesterday morning I flushed a Woodcock. Came within an inch (as usual) of seeing him boring. The ground was riddled with his holes. A neighbor with trained dogs tells me that there are lots of Woodcock breeding between here & Burlington. He gets them as soon as the law is off.

sitting on nest in Syringa bush under the kitchen window. The ♂ sings on a clothes-post near it. As there are two cats in the house I fear the bird's chances of raising a brood are very slim. Lexington village appears to me to be a remarkably birdy place. The bluebirds are in full song again — preparing for 2d brood?

Yrs sincerely
W. Faxon

P.S. I know of three colonies of Martins in this village. In

Arlington, 27 Dec. 1891

My dear Brewster:

I am sorry to hear that the physician takes your trouble so seriously — perhaps he exaggerates the danger a little, as professionals sometimes do. Your enforced vacation has its compensations, however. I enclose the data concerning the breeding of the Bobolink. On the 24th inst. I found the Maryland Yellowthroat again precisely the same spot as before. On the 20th, passing rapidly thro' the Fish Pond swamps towards dusk, I counted 15 Song Sparrows and 3 Swamp Sparrows.

I dont know whether the following notes on the Purple Martin will be of any interest to you

Lexington, 1891.

Apr. 14.	Temp. 77°.	1♂ arrived	
" 16.		2d ♂ "	
" 17.		3d ♂ "	
" 18.		2♀ "	
" 23.		6 birds here	
" 24.	" 42°-56°	2 "	"
" 25	" 35°-43°	2 "	"
" 26	" 34° A.M.	6 "	"
" 27	" 77°	6 "	"
" 29	" 33°, 5 A.M.	6 "	"
May 2		8 "	"
" 4	" 34°		
" 5	" 33°		
" 6		9 (5♂, 4♀)	"

" 15 6 pairs building, ♀ does the work but is closely followed by ♂ during each trip for material. One of the males is in ♀ plumage

" 21 They are lining nests with green pear leaves. The ♂ is active in this, alighting in the pear trees and cutting off the leaves.

May 25 A pair (♂ in immature plumage) appear & build in the old box in the back yard, never before occupied by Martins. Made quick work of the Sparrows! A second male, also in immature plumage appeared at this box ~~a few days~~ some time later & lived there for two weeks or more — a bachelor, never meddling, so far as I could see, with the married couple, but sitting on the chimney most of the time.

Aug.

1. Martins leave the big box with their young.

6. The pair in the old box leave with their young

The young do not leave the boxes till they are able to fly as well as their parents, and do not return to the boxes after they have once left them. After

this they are seen over the Great Meadow in E. Leng., the parents feeding their young in the air like Tachycineta, but at a much greater altitude. The young-of-the-year both before & after leaving the box, has a diagnostic mark by which he may be recognized up to the time of leaving in the autumn. I saw the Martins for the last time on Sept. 8. After they left the boxes they sometimes came into the village toward evening & alit on the vane on the church steeple, but during the day they were over the meadows, feeding. The flight of the Purple Martin appears true to its exactly like that of the White-bellied Swallow, though the greater size & weight of the Martin make his aërial evolutions more impressive to the looker-on. I never tired of watching their motions when toward evening they all left the boxes and spent a half-hour or so in feeding and exercising. They seemed especially fond of this sport when a pretty stiff NW wind was blowing.

The much-heard musical warble of the Martin is, I think, peculiar to the male bird, and he has in addition a true song, which I have never heard mentioned by any observer. This

song I never heard except in the morning twilight (during the robin chorus). It is delivered by the ♂ while sitting on the piazza of the box. It consists of two phrases — d d o d d
chip chip chée, chip chip o churé

repeated ad infinitum and making as continuous a song as the Robin's. It far surpasses the Barn Swallow's song as a musical effort.

After you went to Europe I got my long-looked-for evidence against the House Sparrow. A pair appeared on the scene when everything was quiet, both sparrows and Martins apparently sitting. The female of this interloping pair proved to be a veritable Tartar. She would get in the doorway of one of the Martin's chambers & cocking up her tail & presenting her beak to the enemy hold the fort. When, as sometimes happened, she was dispossessed by the infuriated pair of Martins she was quickly borne to the ground by the larger bird, but on recovering her position and adopting the cat's tactics of getting her back up, she seemed to have the advantage again. I soon put an

end to the contest by shooting the Sparrow. To show how well the Martins seemed to understand the part I was playing in the fray I will add that while the Sparrow was taking a last short flight after being mortally hit (I shot her while she was on the roof of the house) and directly after the report of the gun the ♂ Martin dived upon her in the air. In another second she fell dead on the grass, but the mischief had been done, that pair of Martins was broken up & gave up the box. After this there was no more trouble among the Martins.

Yrs sincerely
W. Faxon

Progne subis

1896 Maine

Decrease of the Purple Martin.

For the MAINE SPORTSMAN.

L. W. Robbins of Gardiner, in speaking of the decrease of the purple martin, does not think they have been driven away by the English sparrow. They have been leaving here for ten years or more, and I have been looking sharply after the cause. The English sparrow gets possession of the boxes before the arrival of the martins in the spring, and many of them used to nest together in the same boxes, but kept fighting all the time. Unless the martins keep a strict watch, the sparrows will steal their nest material and they will take the chick martins by the neck and drop them to the ground to feed the cats. I have found four little chicks at one time of the martins on the ground after a fight. A piece of lath nailed over the holes in the boxes as soon as the martins leave in August and not take them off until about the time they return in the spring will keep them for a time, but they will not nest long where they have to fight the sparrows. Out of the dozens of martin houses in this vicinity I only know of one that had martins last year, and that one not one-fourth the oldtime number. I used to see purple martins breeding in holes of trees in California, and I suppose our birds now go to the forest and breed in holes like woodpeckers.

GEO. A. BOARDMAN.

Calais, Jan'y 19, 1897.

Maine Sportsman, Vol 4 no 42 Feb. 1897, p. 5

(Purple Martins have increased very greatly at S. Umbagog (where there are no Sparrows) within the past 15 years but they rest in bird houses exclusively)

Driven from the towns by Sparrows.

Copied with Umbagog notes

1898 N. H.

June 14-15 Wolfboro. As numerous as ever. [Journ]

July 2-4 Glendale (in or near), Berkshire Co. Two or three. [Journ.].

1899.

June 8 Concord. — Just before daybreak (at about 3.20) this morning, before the first Robin has uttered its first call, I heard, as I was lying in bed at the Keyes', the song of the Purple Martin. Fumbling for my note book & pencil I wrote as follows: "Two or three Martins singing not far from the house in the direction of the Hosmer's meadow & probably perched in the tops of the large elms along the road since the sound comes always from the same place & they cannot be moving about. The song is er-e-er-itty-er-e, er-e-er-itty-er-e etc repeated many times in succession without pause or interval & very tiresome after the first few repetitions." The birds kept it up incessantly for eight or ten minutes. This song is wholly new to me but Faxon has heard it at Lexington

Song before daybreak.

Progne subis.

Waynesburg, Pa.

1900. Extract from a letter by J.Warren Jacobs to Ruthven Deane Feb.1900.

(I send you) a picture of one of my Purple Martin houses. You may not be much interested in it but I am sure you would be tremendously interested in my Martin colony when they return.

A brief history of this colony is as follows:-

In 1896 I constructed a house of 20 compartments and was much gratified to see five pairs of birds take possession. They had some bad luck and only 13 young reached maturity. In 1897 all these with the exception of one immature returned and at the end of their breeding season 38 young left the house. I now found that in order to keep pace with the colony I must provide more room, so accordingly in 1898 I constructed and erected one of 34 rooms which is the one shown in the photo. I think 28 broods were hatched in the two houses that year, and such a "swarm" of birds I had for my trouble was a wonder. It occurred to me that accomodations for the birds would be insufficient for the returning horde in '99, and I accordingly doubled my efforts to provide nesting room.

This time I gave them 50 more rooms, fashioning the house after the Pa. State Building at the World's Fair. 47 pair nested , bringing out almost 200 young birds. What to do

Waynesburg, Pa.

1900. (No.2).

do with them this spring is puzzling me. Nearly 150 pairs will return and as I have but 104 nesting compartments you can realize the situation. Could put up another house, but I already have three, besides our other buildings, on a square of ground 190 feet by 200 feet, in the busy part of the town.

I am very sorry that I find myself surrounded by obstacles just when the colony becomes intensely interesting - 150 pair would rear nearly or quite 500 young, which would make a colony of 800 birds, and after making due allowance for death, etc., 300 or more nesting pair could be counted upon for 1901, and again the increase would be enormous, as they would produce between 1000 and 1200 young.

Kennett Square, Pa.

November 24, 1903.

My dear Mr.Brewster:-

I enclose correspondence just received from Mr.Hoopes. It is not at all complete, but taken with his letter to me also enclosed you can get an idea of what was done. I have asked him where the printed account occurred and will try to get it for you. He does not ask to have this correspondence returned but I think it would be best.

So far as I can learn no Martins were destroyed hereabouts by the rain storms of June. I hope you were none the worse for your Phila. trip. X X X X X

Very truly

C.J.Pennock.

(copy).

West Chester, Pa.

November 24, 1903.

Charles J.Pennock,

Kennett Square, Pa.

Esteemed friend:-

Referring to thine of the 23rd, I believe the attempt to transport the Martins rests with me as Mr.Carson and myself, some years ago, conceived the idea that we could colonize them at the "Zoo" by removing the young birds before they could fly. I have not heard from him for the present season and do not know whether they had any or not but am very fearful, they did not put in appearance there. I think it was in the year of 1899 that we made the removal. I placed a large box on a tall pole and by means of a spring trap and rope, we would be able to shut up all the door-ways instantly and then we removed the box and put it on the night train and the next morning they were hanging on a pole in the Zoological Gardens.

X X X X X X X X X X X

Very sincerely,

Josiah Hoopes.

(copy. The writer is of the firm

Hoopes, Bro. & Thomas,

Maple Avenue Nurseries,
West Chester, Pa.).

The Zoological Society of Philadelphia.

Fairmount Park.

Philadelphia, July 30, 1899.

Mr.Josiah Hoopes,

West Chester, Penna.

Dear Sir,

Pardon me for not writing before but have been waiting for something definite to tell you. Without giving up all hope I am very much afraid the martin experiment will prove a failure. We have a number of the young birds still with us but although some of them fly perfectly well they have not shown the slightest inclination to forage for themselves, except their six meals a day to be put in their mouths and are the tamest birds I ever saw. Not a day has past but one or two of the old birds have been here, they fly with the young ones sometimes but do not seem to have taught them anything. The man who feeds them seems to think that two or three will learn in time to care for themselves but I doubt it, if they do and go south this fall there is a chance of a pair or two locating here next spring and perhaps some of the old ones having become used to the place may settle here next year but I am afraid that is very doubtful too. I do not know how I will feel about trying it over again next year but if I do will take advantage of your kind permission to put the box up again. Very sincerely yours, Rob't D.Carson.

(copy).

The Zoological Society of Philadelphia.

Fairmount Park.

Philadelphia, August 13, 1899.

My dear Mr.Hoopes-

I regret ~~that~~ I did not see you the last time you were here. I am beginning to think that my experiment with the martins may be successful after all. I also believe that at least two of my young birds have been to West Chester more than once and I would like to have you or some one keep an eye on your box and we may be able to prove as these birds are marked so they can be known. One of them has the second quill on each side of the tail squared off in this manner and the other one has one quill on each side of the two central tail feathers cut in the same manner, so I marked these two birds in this way so I would know them if they came back next spring, the mark can be easily seen at quite a distance if you are nearly under them. These two birds are now able to take care of themselves, are often away for hours, on several occasions after being away for a long period they have come back with other martins and today two old birds came here at 9.30 and when they left at abuut 10. took one of mine with them, she did not return until 4. this afternoon.

Our man told me you said you had only five birds left when you were here. On August 6 I counted five strange martins flying with mine. I would like to hear from you soon.

Very truly yours, Rob't D.Carson.

An unmarked young one flew away with 3 old ones last Wednesday and did not return. The direction of their flight was South, this hardly indicates that they were migrating and mine went with them but it is not impossible. R.D.C.

The Zoological Society of Philadelphia.

Fairmount Park.

Philadelphia, April 5, 1900.

Dear Mr.Hoopes-

I am in receipt of yours of yesterday. I am, indeed, very much disappointed to learn that your brother has erected a new box in his yard, and am much afraid his doing so has materially lessened my chance of getting the birds here for, as you know, my main hope depended on the birds from the box I erected on your place last spring not finding quarters for them in their old locality and in consequence coming here where they had been so often last year that the place had become familiar to them. The fact of there being a new box in close proximity to the location of the old one will in all probability induce them to settle in it whereas otherwise it seems to me they would have come here.

Now, I fear, all my trouble and work is to go for nothing

Very truly yours,

Rob't D.Carson.

(copy).

The Zoological Society of Philadelphia.

Fairmount Park.

Philadelphia, May 6, 1900.

Mr.Josiah Hoopes,

Dear Sir,

On Saturday, April 28, several martins visited the Garden. They remained some little time flying about and feeding. I was away and cannot say that they alighted on the box but think not. This is all the encouragement I have had so far.

Will you be kind enough to notify me when your birds begin to build. It is not quite time for them yet I think. In case they do not come here, as I am afraid, would you care to spare me out of your abundance a few half grown young ones? I think with the experience we had last year we would be able to raise them and it would give us one more chance to establish the colony I so much want. Ten or a dozen would be enough or if you would not care to have so many taken I would try it with less. They could be taken when most of the old birds are away and but one from a clutch. If you would not care to have the box disturbed you will, of course, not hesitate to say so.

Very truly yours,

(copy). Rob't D.Carson.

The Zoological Society of Philadelphia.

Fairmount Park.

Philadelphia, June 28, 1900.

Dear Mr.Hoopes,

The report of the Martins having returned to my box is true. I was waiting until I could find time to write you and also until I was assured they had come to stay and I did not know the papers had said anything about the matter. Yes, in spite of my several disappointments the birds have come and, I begin to feel, they will be a fixture, and, moreover, their actions prove that some of them if not all are those I raised by hand. On last Saturday at 1.15 P.M. 8 came to the box all remaining half an hour. One pair stayed until nearly 7 o'-clock. On Sunday all came again and remained all day. One pair commenced building. They were here again yesterday and today, very busy and happy and apparently quite at home. Is this not very late for them to nest?

I feel very much gratified that my plan to colonize them here has been successful. No one seemed to have the slightest idea it would be. I again thank you for your share in the experiment in allowing me to place my box in your yard and hope you will come to see my birds.

Very truly yours,

Rob't D.Carson.

(copy).

The Zoological Society of Philadelphia.

Fairmount Park.

Philadelphia, Sept.5, 1900.

Dear Mr.Hoopes,

One and perhaps two pairs of Martins bred in my box this season, but in addition to those that bred, there were two or three pairs and sometimes more on and about the box nearly every day and, on the 18th of August, at about dusk, there must have been over 100 in sight at once. A few were seen early the next day but, with the exception of the young birds from my box which left on the 24th, none have been seen since. I would like to know when your birds left so, if you have the date, I will be obliged if you will send it to me. I think I may say that the Martins have yielded to the determined effort to bring them here and will in future make the Zoo one of their summer homes. I thank you however for your offer to place your colony at my service again.

Very truly yours,

Rob't D.Carson.

(copy).

The Zoological Society of Philadelphia.

Fairmount Park.

May 12, 1901.

My dear Mr.Hoopes-

On April 30 I saw one Martin on the box but none since until today at 12 M. when several appeared and seem to have made up their minds to remain. I have been disappointed that they did not come before and cannot understand it. Excuse postal and haste.

Very truly yours,

Rob't D.Carson.

(copy).

The Zoological Society of Philadelphia.

Fairmount Park.

Philadelphia, July 30, 1901.

Dear Mr.Hoopes,

I regret I can say nothing very encouraging about the Martins. As you know, they bred in my box last year and I was quite sure I would have more this year, but, although, several pairs came and remained several weeks, they finally left; some or all of them have been back at intervals but they certainly have not bred here and I have seen none at all for the past three weeks. I hope for better luck next year.

Very truly yours,

Rob't D.Carson.

(copy).

The State Board of Agriculture
OF DELAWARE.

S. H. MESSICK, Bridgeville, PRESIDENT.
J. T. SHALLCROSS, Middletown, VICE PRESIDENT.
A. W. SLAYMAKER, Camden, SECRETARY.

CHARLES J. PENNOCK,
Ornithologist.

Kennett Square, Pa. 1/8/04

My dear Mr. Brewster.

I have just received the enclosed from Mr. Carson who made the experiments together with Mr. Hospes on the Martins - This account is extremely interesting - It seems to had they were not more successful.

You are at liberty to make what use you may desire of the enclosed notes so far as I am concerned & Mr Carson does not seem to object.

Kindly return me Mr C's notes when you are through with them -

With my best wishes I am

sincerely Yours

C. J. Pennock

The Zoological Gardens.

Philadelphia, January 6th, 1904.

Mr. Charles J. Pennock,

Kennett Square, Pa.,

Dear Sir:-

I have been away from my office for some weeks and this will explain why your inquiry, regarding my attempt to induce the Martins to colonize in the Zoological Gardens, has not received attention before. I regret to say that the experiment did not result in the birds locating here permanently

In the Spring of 1898 I had two swinging Martin boxes, each of 24 compartments, 12 on each side, put up on a pole near the office. No Martins appeared that year and, I may say, that none, as far as I know, had ever been seen in the Gardens. The following Spring, that of 1899, through the kindness of Mr.Josiah Hoopes, I had a pole with a cross-arm erected near his colony in West Chester, to which on March 13th., I swung one of my boxes, at the same height and facing the same direction as it did here; this box was so arranged that by pulling a cord the openings into the interior could be closed. Mr.Hoopes kept me informed, first - that the box was tenanted, then that the old birds were feeding their young. On July 12th., I took an assistant to West Chester and when all was quiet, about 9 P.M., pulled the cord, lowered the box and brought it to the Gardens and by midnight it was back in its former position. At 2 A.M. I pulled the cord again, this

time so arranged that it would open instead of close the entrances to the nests: Instantly there was a volley, no other word will express it, of birds from both sides of the box and strange to say, the direction of flight, as far as I and two men who had been helping me, could see, was, without exception towards West Chester. I watched for a while but no more appeared, but about daybreak I counted four more as they took flight, these left singly but each one took the same course as all the others. I have often thought over this and believe if systematic experiments, based on this observation, were made with Martins and other birds something further could be learned in regard to the sense of direction, If it was verified, it appears to me, that nothing but a special sense, and a very keen one at that, could explain it. Mr.Hoopes reported the next day that what he believed to be the old birds were flying about the pole from which the box had been taken and acting in a "distracted manner". No old birds were seen in the Gardens all day and at 7.30 that evening we lowered the box and found that we had nine clutches of young ones, 32 altogether. There was but one thing to do, feed the young by hand. At first it took two men two hours to feed them, for a while they were fed three times and afterwards twice each day. They were in stages of developement from less than half grown

to almost ready to fly. The second day some of the old Martins came and continued coming all through the season but seemed always to go away before night and they did not feed the young ones. I put a light rope and pulley attachment to the box so it could be lowered at feeding time, at other times it was kept in position on the pole. We had fair success in rearing the nestlings, the youngest died and some of the older ones were soon strong enough to fly and they promptly disappeared, several got into trouble on their first flight so that finally we had four left and then two of these flew away, the remaining two we felt sure were a Male and a Female. They became quite tame, would forage for themselves but for a long time were ready to come at meal times, they made the box their home but after a while it did not have to be lowered as they would alight on a bush nearby and allow the man who fed them to come near enough for them to eat from a dish he held in his hand, they would at times alight on the dish and even eat from his fingers. At intervals adult birds, sometimes one or two and at other times quite a number would appear and the young pair would fly with them. I give you here my last notes for the season.

August 19th. Two old birds came and flew with the young ones for a little while then, at about 8.30 A.M., all four flew away and the young ones did not return until 4.30, each

ate six meal worms out of C's hand, first time they have been so fed for some days. August 20th. Neither bird would come down to C. this morning, they were both flying and feeding with an old one, when C. came. At 8.30 the male one and the old one went away together, the young female was chasing a dragonfly at the time, she caught it, returned to the box and ate it and in about ten minutes followed the others. No more Martins were seen in the Gardens in 1899.

Notes made in 1900.

March 12th. Hung one Martin box. April 28th C.saw 3 Martins feeding over Lion House shortly before 2.P.M.

June 23rd. At 1.15 P.M. 7 or 8 Martins came to the box, in and out, all remained about half an hour then all but two left, these two remained until 6.45, seemed to be selecting a hole, were seen with straws in their bills.

June 24th. Martins all day, one pair building.

June 25th. C.saw one alight on bush where he fed last year's birds, also on Chestnut tree (a last year's favorite place for some of the young). One pair to-day which remained until 8 P.M.

June 26th. One pair until 8 P.M.

June 27th. One pair until 5 P.M.

June 28th. I saw one at 7.30 A.M. carry five or six sticks into box in about 20 minutes.

June 29th. Do not think they stay in the box at night except at nesting time. At 7.30 this evening, the only one I had seen for an hour left and did not return. I believe female has commenced to sit.

June 30th. Four to-day. It appears as if only one pair had decided to build.

July 1st. Another pair appears to be building on the other side of the box.

July 17th. Saw one Martin, after 7 P.M., make 4 or 5 trips, apparently to gether food, it would remain in hole about a minute and be away from 5 to 15 minutes. Is it feeding young or mate?

July 18th. Saw 7 Martins flying and on box at one time, some act as if new to locality.

July 28th. 6 possibly 8 this A.M.

August 7th. Saw one young bird at eastern hole and afterwards on ledge this A.M.

Aug.9th. Saw 2 young ones on platform on east side this A.M. M.says he saw 2 on W.side (doubtful).

Aug.16th. Many Martins on tops of trees about office. C.says he saw them feeding young. Have the young left the box?

Aug.18th. Large number, 30 or more, flying at different heights this P.M. V.says at six P.M. there must have been 100.

Aug.19th. Martins on crosstrees of flagpole, would fly away a moment when touched by halliards but would return at once. This was early this A.M. Are they preparing to migrate

Aug.20th. Saw young birds on box, also two or three old ones flying about box.

Aug.24th. C.saw 2 young birds flying alone over carpenter shop. These were the last seen in 1900.

In 1901 the birds came and were here more or less during the season, but not in sufficient numbers to make them independent of the sparrows which had occupied the box and while we thought one pair made a nest and commenced to sit, no young ones were seen.

In 1902 a few came but less than the year before, and last year, 1903, none were seen. The box is still up and we continue to hope the birds will come. If I could spare the time, I would try the experiment again and believe with the advantage of the former experience I could raise a much larger number and make it a lasting success.

This is the first abstract I have made of this experiment All that has been published, as far as I know, was a very short article in a West Chester paper, from Mr.Hoopes, I think, and a mere item regarding it in one of our city papers.

Very truly yours

Rob't D.Carson.

P.S. In the Spring of 1900 Mr.Josiah Hoopes' brother put up two Martin boxes near the original one at their place in West Chester, and I think this was one of the reasons, and probably the principal one, that the experiment was not a complete success.

(Copy of a letter loaned by Mr.Charles J.Pennock in January, 1904).

Some Wonders from the West.

LIV.—A MARTIN VILLAGE.

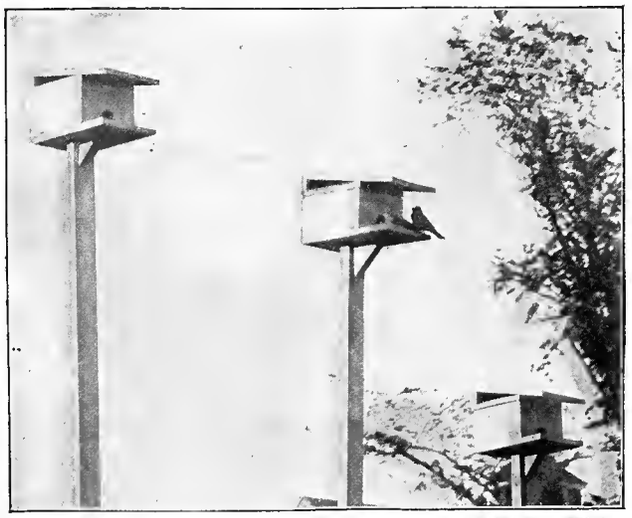
A GENERAL VIEW OF THE MARTIN VILLAGE.
From a Photo.

ONE of the best-known birds of temperate North America is the purple martin. He is a bold fellow and follows the first breath of spring north from Cuba and Mexico, where he passes the winter months.

Long of wing and swallow-like in form, he is a strong flier and he knows not what fear is. The larger predatory birds are aware of his prowess, and the call of the single martin to the clans is followed by a precipitate retreat on the part of the trespasser. He is of an extremely sociable disposition, and dwells by preference where man has his habitation, rarely being seen far from settlements. This fact has led to the custom of supplying him with a home for himself and family. There are few farms that have not a martin house reared for Mr. Martin, and the invitation extended by an unoccupied box is soon accepted. No "To Let" sign is necessary; the mere fact of the house being untenanted is sufficient for the martins, and once domiciled they fight for their homes valiantly, rendering service for the leasehold by protecting the feathered dwellers in the barn-yards from the attacks of thieving hawks.

The largest martin village in the United States is one maintained by Mr. Otto Widmann, a few miles from St. Louis, in the State of Missouri. There are eighteen houses in the village proper, and every spring the martins return there. The inevitable spring house-cleaning is no small task, but they work valiantly, putting things to rights and refitting, and then settle down to their Liliputian housekeeping for the summer months.

The houses in the little village are all in a row and face towards the south. In front of



From a] A NEARER VIEW OF SOME OF THE MARTIN HOUSES. *[Photo*

each is a comfortable veranda, and the martins sit there in the evenings discussing men and things, gossiping merrily, unmindful of the clatter that ensues from all talking at once. On the outskirts of the village proper are several suburban cottages occupied by martins who arrived too late to take a town house, but no line is drawn between town and country dwellers. The cottages on the outskirts of the village are truly suburban, for they are perched up among the branches of the trees that surround the settlement, and the green foliage and the pleasant shade make them delightful habitations.

From a] "UNDER THE SLANTING ROOF." *[Photo.*

When the little martins arrive there are busy times in the village and its suburbs, for they have tremendous appetites, and the families consist of from four to six children each. It is amusing to see the comfort the martins find in their tiny homes. Sometimes the wife will sit in the front door, her head only peeping out, and berate her spouse for some real or fancied neglect until the poor fellow takes flight. Often they sit side by side under the slanting roof, gossiping with their next-door neighbours and chattering away noisily, each trying to outdo the other. The branches of the trees in the vicinity are favourite resting-places for them when they feel disinclined to share the noisy gossip of the village, and it is amusing to see a couple sitting side by side demurely watching the turmoil, as one of the photographs shows them. Let a dog or cat approach the martins' village and the uproar is indescribable. Even a strange human being creates much of a disturbance; but the birds know the man who built their village and do not resent his visits in the least.

From a] "WATCHING THE TURMOIL." *[Photo.*

When the young birds have grown to maturity their parents send them out upon the world with little preliminary instruction, but they launch forth bravely and are strong winged from the first trial. Not until the second year do the young birds attain the full glory of their plumage. The first is spent in sombre, dull black, that makes them look vastly different from their elders, but the next summer finds them clothed in purple and resplendent.

Beyond doubt many of the martins have dwelt in the tiny village from the time of its founding, eight years ago. Some of them are so marked that it is easy for a bird-lover to identify them, and year after year they come back to the spot that is their home and that was built for their pleasure.

When the winter winds wisp the snow through the open doors and pile it up into little drifts on the porches, the feathered villagers, far to the south, are revelling in the suns of Cuba or Mexico, thinking perhaps of their little cottages swaying in the winter winds far to the north.

The Strand Magazine, June, 1903.

Birds of Upper St. John.
Batchelder.

35. **Progne subis** (*Linn.*) *Bd.* PURPLE MARTIN.—Common, breeding in martin-houses at Fort Fairfield. This bird seems to be generally distributed throughout eastern Maine and the adjoining parts of New Brunswick, where there are settlements. While on our way to Fort Fairfield we noticed it at a number of places between Bangor and Woodstock, N. B., as well as at various points along the St. John River between Fredericton, N. B., and Fort Fairfield. It is also common at Houlton.

Bull. N. O. C. 7, April, 1882, p. 110

Last Dates Migratory Birds observed by
E. D. Wintle, Fall 1885, Montreal, Can.

Aug 16, Purple Martin.

O. & O. XI, Mar. 1886. p. 44

Nesting Habits of Texas Birds.
H. P. Atwater, London, Ontario, Can.

Purple Martin, (*Progne subis*). Breed in martin boxes at the ranches. First eggs taken May 17th, 1884.

O. & O. XII, July 1887 p. 105.

Birds of Toronto, Canada,
by James H. Fleming.
Part II. Land Birds.
Auk, XXIV, Jan, 1907, p. 82.

225. **Progne subis.** PURPLE MARTIN.— Regular summer resident, local and decreasing, April 18 to August 25; breeds (June 7, 1890).

Summer Residents on Southwest Coast of Maine. T. H. Montgomery, Jr.

611. Purple Martin. Saw about a dozen at Camden, Aug. 3d.

Auk, 10, 15 Nov, 1890, p. 362

Maine Bird Notes.

I have never seen any suggestion of Martins (*Progne subis*) being night birds, but a few years ago, about ten o'clock of a bright moonlight night in August — my note-book says August 8 — I was resting in a hammock outdoors, when I heard the calls of Martins. A few minutes later my husband coming up the walk said, "Did you hear that?"

"Hear what?" I asked evasively.

"Well, I heard Martins if I ever heard them!" he replied, "and, moreover, I saw them. I looked up quickly and there were some flying across the face of the moon."

June 15, 1900, Mr. Bates, walking home from a train that reached Waterville between two and three in the morning, without having a thought of Swallows, suddenly heard them in the air above. Again it was bright moonlight.

Abby F. C. Bates, Waterville, Maine.

Auk, XVIII, Oct., 1901, pp. 400, 401,

Progne purpurea. — Aug. 20 (Nemb.) Rye Beach, N.H. 1867.

Progne purpurea. — Aug. 17 (2 shot E.P.) Rye Beach, N.H. 1868.

Progne purpurea. — Aug. 6 (Sev.), 23 (C.) Rye Beach, N.H. 1871.

Progne purpurea. — Aug. 9 Rye Beach, N.H.

Shelburne, N.H.

Progne purpurea

1884.

July 9 An adult ♂ seen on the river meadows by Chadbourne. This was the only individual observed in Shelburne but a small colony was afterwards found at Gorham, six miles distant, breeding in a Martin box in the center of the village. The bird does not occur at the Glen House but it breeds numerously in Bethel, Maine.

Wolfeboro, N.H. June 17-1887.
Progne purpurea — twelve
Wolfeboro, N.H. June 18-1889.
Progne subis, About 8 pr. martin box on barn in town

Birds Obs. at Moultonboro, N.H.
July 21 - Aug. 11, 1883. F.H. Allen

Progne subis.—Common.

Auk, VI. Jan., 1889. p. 78

Birds Obs. at Bridgewater, N.H.
July 12 - Sept. 4, 1883. F.H. Allen

Progne subis.—A few seen.

Auk, VI. Jan., 1889. p. 77

Birds Obsvd. near Holderness, N.H
June 4-12, '85, and 4-11, '86, W. Faxon

38. Progne subis. PURPLE MARTIN.—Common.

Auk, V. April, 1888. p. 150

Bds. Obs. in Franconia, N.H. June 11-21
'86, and June 4 - Aug. 1, '87, W. Faxon

45. Progne subis. PURPLE MARTIN. — A flock passed through the village, June 19, 1887. Apparently not breeding in the village.

Auk, V. April, 1888. p. 152

Birds of Hillsboro Co. N.H. June 27, '92
Arthur M. Farmer, Amoskeag, N.H.
Purple Martin, several were observed flying about during the rains.

O. & O Vol. 17, Sept. 1892 p. 136

Colebrook, N. H.

1896 Progne subis

June 14 Near the station is a very tall pole supporting an electric light which is sheltered above by a tin cap identical in form & construction with the caps used on the arc lights in Cambridge ("witches' caps" Boeles used to call them). As I approached the pole I saw a pair of Martins circling about the cap. Presently the ♂ alighted just below it and a moment later they flew up into it. With my glass I could see portions of a nest projecting over the edge of the board in the top of the cap & also the bird's head & neck.

A large Martin box in the village also harbored two pairs of Progne but most of the apartments were occupied by Passer domesticus.

PURPLE MARTIN, (*Progne subis*). Rare Summer resident, quite local. Arrives May 1 to 8. Breeds, nesting in boxes made for their use.

E. O. Tracy, Fayetteville, Vt.

O. & O. X. May. 1885. p. 71

Mortality of Purple Martins (*Progne purpurea*) **at Brattleboro, Vt.**— During the long rain in June, 1903, the nests in the bird house belonging to William C. Horton of Brattleboro, Vt., became completely watersoaked, and thirty young and two adult Purple Martins were found dead in their nests. The remaining members of the martin colony abandoned the house, leaving twelve eggs unhatched. Occasionally a few return and fly about as if trying to catch a glimpse of the inside of their home but none have ventured to enter up to this date (July 17).— FRANCES B. HORTON, *Brattleboro, Vt.* Auk, XX, Oct., 1903, p. 435-436.

Princeton & Rutland, Mass. Aug. 2-1885

10. Progne purpurea R. P.

Absent on Martha's Vineyard, Mass.

Mr. Howard Norris of Cottage City tells me that he has never seen a Martin on Marthas Vineyard & that he is sure none are bred there.

Progne subis

Mass. (near Concord).

1887

May 8^{2} - 10^{6} - 13^{4} - 17^{4} - 21^{1} - 23^{2} - 25^{2} - 26^{4}

June 2^{6} - 4^{8} - 6^{4} - 7^{6} - 12^{10} - 16^{6} - 17^{6}

July 4^{8} - 7^{8} # - 10^{6} - 15^{2} - 20^{4} - 24^{4} - 25^{2} - 26^{2} - 31^{2}

Aug. 9^{1} - 13 (2 ad ♂ 2 white beneath) - 17^{2} (white beneath)

young out.

Progne purpurea.

Mass. (Winchendon)

1887

June 24^{4} - 25^{10} - 26^{4}

Progne purpurea

Progne pur. 11^{8} - 18^{10} (in Winchendon only)

Winchendon, Mass. June, 1888.

Falmouth, Mass. 1889.

14. Progne purpurea July 4^{8} (8 ad ♂ 6 ♀) - 14^{8} - 21^{2} - 28^{4}

Mass. (Concord) Progne purpurea

Habits

1887

June 12 Four adults (2 ♂ + 2 ♀) alighting in the tops of leafy elms on the river bank at 6 P.M. They alight in trees, even at this season, much oftener than any other hirundines except T. bicolor.

Two ♀s on gravelly shore of river moving about freely by short runs with mincing steps very like Terns. They were picking up and eating something.

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Aug. 24; Purple Martins are now very common.

O. & O. XI. Jan. 1886. p. 1

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Sept. 10; fresh N. E. wind. More Purple Martins passed over.

O. & O. XI. Jan. 1886. p. 2

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Flew over Sept. 13; - a score of Purple Martins. They were the last seen of ~~this~~ those species.

O. & O. XI. Jan. 1886. p. 2

Birds of Bristol County, Mass.
F. W. Andros.

Progne subis (Linn.), Purple Martin. Summer resident, common. Breeds.

O. & O. XII. Sept. 1887 p. 140

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Sept. 9; strong southerly wind. Great numbers of Purple Martins passed over, taking a southerly direction. The flight was quite steady for as much as forty-five minutes.

O. & O. XI. Jan. 1886. p. 1

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Aug. 22 Purple Martins are commencing to flock.

O. & O. XI. Jan. 1886. p. 1

[illegible]ds Known to Pass Breeding Season
[illegible] Winchendon, Mass. Wm. Brewster

Progne subis.

Auk, V, Oct., 1888. p. 389

What has happened to the Martins? — Last summer the Martins (*Progne subis*) were suddenly either destroyed or driven away from their boxes in this town where for many years they have been domiciled. I watched interestedly for their arrival this spring, and was delighted on May 8, 1904, to see one about their old homes; but my delight has been short-lived, as the one lone bird disappeared and no others have come. Does it mean that the largest Concord colony I know of, where for many years at least fifteen pairs have nested, is wiped out? I would like to know if other New England towns have so mysteriously lost their Martins. — REGINALD HEBER HOWE, JR., *Concord, Mass.*

Auk, XXI, July, 1904, p. 387.

Connecticut, June, 18[illegible]

Progne Subis

June 4 [illegible] Fairfield.

" 5 4 6 6 7 - 8 5 9 8 10 4 11 3 12 5 Saybrook

14 2 15 1 16 6 18 1 19 2 ad 4 grey " Ferry.

Two pairs appeared at Mr. Clark's after June 12th (I think it was the [illegible]) and took possession of a box nailed against the side of the house directly under a window. The males of both pairs were "immature" but on the 8th an adult [illegible] joined the colony. Mr. Clark says the Martins never take his boxes until very late in the season. June 19th a flock of six birds appeared about the house at Saybrook Ferry acting as if they had just a [illegible] [illegible] for nesting places. After inspecting our premises they all flew [illegible] together towards the [illegible]. Two of the members were old males.

The Tagging of Nesting Birds.— The plan introduced by Dr. Leon J. Cole of New Haven, Conn., for the marking of birds, both old and young, should prove in time of much value by its help in solving some of the problems connected with their migratory movements, and for that reason we may wish it a success.

My experience, however, in the tagging of young Martins, as I regret to say, has not proved altogether successful. For example, a brood tagged July 26 was found to have left the chamber safely, but not so the remaining members of another brood similarly marked two days later. On August 12 the remains of this bird were found just outside the chamber on the martin-house platform, some of the nesting material it seems having become attached to the aluminum band on the bird's right leg, holding it fast and thus causing it to perish after being abandoned to its fate by the older birds. Unfortunately my attention had been drawn elsewhere soon after the marking, otherwise this tragedy might have been prevented.

But this incident serves to show that some caution will have to be exercised in the marking of the young; and, in the writer's opinion, it may be necessary for us to confine our work to the larger and more powerful birds.

For obvious reasons such birds as the Vireos, and particularly the Orioles and various members of the family Paridæ, should be stricken from the list; in fact, any of the birds where a similar mishap is likely to occur.

A tag might be devised, however, which would remedy all this and allow us to proceed with the original plan, but nothing thus far has presented itself to my mind. Others perhaps may have met with a similar experience.— Benj. T. Gault, *Glen Ellyn, Ill.*

Auk XXVII. Jan. 1910. p 92. 93.

Birds of the Adirondack Region.
C. H. Merriam.

48. **Progne subis** (*Linn.*) *Baird.* PURPLE MARTIN.—Breeds in "Martin houses" in the villages that lie within the limits of the Adirondack region.

Bull. N.O.C. 6, Oct, 1881, p. 229

Birds Tioga Co. N.Y. Alden Loring.

152. Purple Martin. Rare.

O. & O. XV. June, 1890, p. 82

Birds of Oneida County, New York.
Egbert Bagg.

Progne subis.—Given as "A not uncommon summer resident. Breeds." Has practically disappeared; within the last few years an occasional migrant is all that has been seen.

Auk XI. April. 1894 p. 164

Birds at Fort Hamilton, L.I... Bersier.

Progne purpurea.... See under
Picus villosus.

Bull. N.O.C. 6, Jan., 1881, p. 13.

Notes on the birds of Madison County, New York.
with especial reference to Embody's recent list.

19. **Progne subis.** PURPLE MARTIN.—"Rarely seen," etc. Breeds at Oneida and seems to be holding its own against the English Sparrows. I took a set of 4 eggs from an electric arc lamp at Oneida, July 12, 1895.

By William R. Mayon. Auk, XX, July, 1903, p. 265

Decrease of Purple Martins on Long Island, N. Y.—Seeing a note on Purple Martins in Concord, Mass., a short time ago in 'The Auk,' I thought the following might possibly be of some interest. Three summers ago, Purple Martins (*Progne subis*) were very common at Quogue, L. I., and bred in boxes erected for their occupation. The summer of 1903 they had decreased in number, and last summer they had disappeared apparently from the locality. I am afraid English Sparrows took possession of their boxes.

The summer of 1903, I killed a Black-breasted Plover (*Squatarola squatarola*) on July 1, as recorded in 'The Auk' (XXI, p. 79). Last summer I saw one on July 6, with a very black breast, but unfortunately missed him. Snipe and Plover were exceedingly rare all last summer.—F. W. KOBBÉ, *New York City.*

Auk, XXII, Apr., 1905, p. 211

Birds of Washington Co. Oregon.
A. W. Anthony.

86. Progne subis. PURPLE MARTIN.—One seen in May.

Auk, 3, April, 1886. p.180

9/2/03 — Copy —

Purple Martins

Kennett Square Pa

Have noticed for a few days these birds hunting in bands of 3 to 6 or 8—
about 5 P.M. (to-day) as I was returning from Taylor's woods I found them more abundant & noticed 50 or more on & about Vane & Steeple of the Methodist Church, from which (place) they would scout out into the Zorrounding country— At one time the entire bunch left at about the same time Spreading over more than a Quarter of the Arc of the horizon, but breaking (later) into Small bands—
about 2 weeks ago, I noticed, twice in one day, 8 or 10 (of these birds) perched in a dead tree top ½ mile north of Miles' Mill. At the Mill there is a considerable colony nesting—

Bird Notes by C. J. PENNOCK,

Kennett Square, Chester County, Pa.

Albinism and Melanism in North American Birds. Ruthven Deane.

I have seen specimens of *P. purpurea*, in this white dress.

Bull. N.O.C. 1, April, 1876, p. 21

Auk, XIV, Oct., 1897, pp. 407-8.

Purple Martins (*Progne subis*) Breeding in Electric Arc-light Caps. — During a recent visit to Vergennes, Vt., I noticed that many pairs of Purple Martins were nesting in the caps suspended over the electric street lamps in the heart of that rural city. Indications of the same proclivity to utilize the street lamps for domestic purposes were shown by Purple Martins that I watched near North Adams, Mass., in 1895, and Mr. Brewster tells me that he found a pair of these birds breeding in a similar situation in Colebrook, N. H., in 1896. Probably many of the readers of 'The Auk' who live in a Martin region are familiar with this nesting habit of the Martin, though I do not remember to have seen any mention of it in print. The late Frank Bolles ('Boston Post,' Feb. 3, 1891) facetiously remarked that the House Sparrow's propensity to build its nest and rear its young "on the edge of Hades" (*viz.*, in electric-lamp reflectors) was sufficient evidence that it was the offspring of evil and justly under the ban of the Commonwealth. I had always deemed this a just count against the Sparrow, until I discerned the same disposition in our own favorite Martin! I hope the lamp-tenders of Vergennes discriminate between Martins and Sparrows in their daily visits to the lamps. — WALTER FAXON, *Museum of Comparative Zoölogy, Cambridge, Mass.*

The Purple Martin in the South.

BY W. B. HINTON, SPRINGVALE, GA.

The annual visits of no bird meet with warmer welcome than those of the Purple Martin (*Progene purpurea*). As a protector of the poultry-yard against the depredations of hawks, he is held in high and general esteem by our farmer friends, who attest their appreciation of his worth by erecting for his reception tall poles from which swing a number of capacious gourds. At this juncture it may be proper to state the curious fact that the Martin prefers a gourd to a box as a nesting place. I have frequently put this matter to a test and invariably had the case settled in favor of the gourd. Why this is true I am at a loss to explain, unless it results from the shape of the gourd being better adapted to nesting puposes — conforming as it does to the shape of the nest. Or, may not the pendent position of the gourd afford greater security against the intrusions of such robbers as the Blue Jay (*Cyanocitta cristata*), Loggerhead Shrike (*Collyris ludovicianus*) and the common house cat?

If there are among your Northern readers any not familiar with the primitive method before mentioned, of providing homes for the Martin, and who would like to make a trial of it for the mere sake of variety, let them procure a half-dozen or more gourds, not less each than six inches in shortest diameter, and about three inches from the bottom, holes just large enough for the easy ingress and egress of the desired occupants, and with strong strings passed through the necks of the gourds, tie them closely and securely to the outer ends of the horizontal limbs of a pole, not forgetting in the preparation of the gourds to bore two or three gimlet-holes in the bottom to drain off the water during severe rains.

In this latitude (31° 45′) the Purple Martin arrives regularly by the first day of March, the first arrival this season being noted by me the 27th of February. On the 22nd of February it was reported that a pair had that morning been seen upon the pole in my garden, but as the birds did not come under my personal observation I will not venture here to commit the arrival to record. Had I seen the birds, however, I should not have been surprised, for the peach and plum had been in bloom nearly two weeks, and the maple was red with blossoms.

The most interesting period of the Martin's stay with us, embraces the interval between the date of arrival and the commencement of nidification. During those six or eight weeks he is all fuss and flutter, each member of the colony endeavoring to make more noise than his neighbor, and each is eminently successful. It is pleasing to watch them rise to the upper air for the purpose of feeding, then suddenly furl their wings and pitch head-long for the pole from a point at an angle of forty-five degrees and at a height of three or four hundred feet. The entire descent is made with wings closed tightly against the sides; and often the most graceful deflection from a direct line is accomplished in order to reach the entrance to a gourd or a box that may chance to be in a position contrary to the point of descent. In these aerial races, for they are nothing else, I have observed that the bird which arrives earliest in the spring and makes first choice of a nesting-place, always leads, seeming to be afraid that some other member of the company will out-strip him, seize and take possession of his own particular property. This leader invariably terminates his descent only by plunging into his little room, as if to renew his claims and assert anew his right of possession; but he no sooner enteres than he emerges again and is as light hearted and garrulous as before.

The gregarious nature of these little birds is food for thought to the ornithological student, while the perfect harmony in which they dwell together is a characteristic that must attract the attention of the most thoughtless observer. Being sensitive to cold they not infrequently suffer in consequence of the cool weather that sometimes succeeds their early arrival. After a cool spell of wind and rain once that lasted two or three days, I counted ten emerging one behind another, from a single large gourd.

About the first of May nest-building begins; a piece of labor that devolves mainly upon the female, her liege in his suit of glossy black escorting her with clownish gallantry back and forth in search of building material. An examination, for many seasons, of the old nests reveals the information that thin scales of pine bark constitute the body of the nest, to which a few grass straws and fine bits of weed are added. I would be glad to know what material they employ in lieu of the bark in divisions of the country where the pine does not grow. If the male manifests his industry in constructing the nest, I am not sure that he does not exhibit more daring in the defence of the young; though both birds display admirable courage when attacking a foe. Nor do they wait until they have hatched before giving proof of their prowess, but are willing at any season to wage war upon a recognized enemy. I witnessed one, yesterday afternoon drive a Sparrow Hawk (*Falco sparverius*) before him at a furious rate.

O.&O. XII. May. 1887 p. 77-78.

W. B. H. ... Smithville, Georgia.

BIRDS BUILDING THEIR NESTS.

The Martins were busy conveying light layers of pine bark to the nesting places which I had provided for them. These agile birds fasten themselves after the manner of Woodpeckers to the towering boles of the pine, and with their bills detach bits of bark thin as letter paper. Out of this bark they construct the foundation and major portion of the body of their nests.

The Martins are building earlier this spring than usual. Indeed they arrived two weeks earlier than I ever saw them before — the first (a male) reaching here the 12th of February.

About two feet distant from a pair of Martins is an English Sparrow's nest; yet the birds do not annoy one another. Apropos of this subject: Last year a little Martin house containing four rooms, each facing a different point of the compass, had three of its rooms occupied by Martins, and the fourth one by a pair of English Sparrows, all rearing broods at the same time; still there was no manifest contention among the birds.

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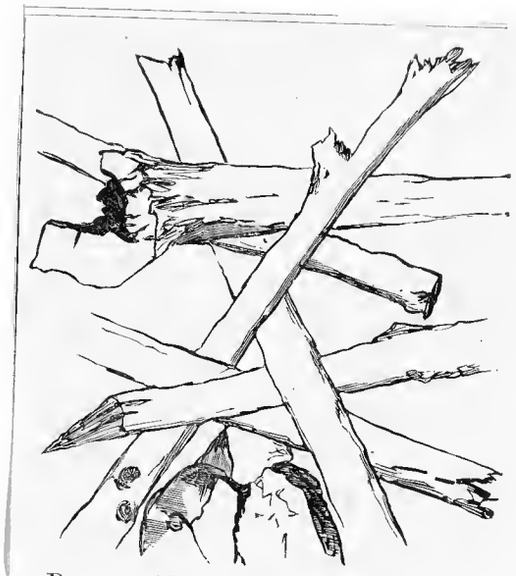
O. & O. 14. July. 1889. p. 108.



PECULIAR NESTING PLACE. On May 21, 1880, Paul Hoffman, of Rockville, Conn., while out collecting noticed a Purple Martin enter the end of a hollow rail in a Virginia fence. On examining the cavity he found the nest of the Purple Martin about eighteen inches in the cavity. It was composed of dried grass and contained four eggs. The opening to the nest was about four feet four inches from the ground. Our illustration is a correct representation sketched on the spot. O. & O. VIII. Sept. 1883. p. 67

Progne Martin: Linn. Syst. Nat. 1758, 192

Hirundo violacea Linn. 1766, 344

not in Bon. Syn. " subis Bonap. Obs. Am. 1807 5-7, M. XXVII-XXVII

Art. " Bon. Jr. " purpurea " Nouv. Dict. XIV, 509

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Purple Martin: See "Bird Visitors" Lighter House, under Little Island. O. and O. X. Oct. 11

1 Purple Martin Taken at night, at the Light House, Warrington, Fla. March 22, 1885. By D. D. S., Otsego, N. Y.

O. & O. X. Oct. 1885. p. 158.

914. *How Young Birds Are fed.* By O. Widmann. *Ibid.*, p. 484.— Minute observations on the feeding of young Purple Martins (*Progne subis*) by their parents. For. & Stream. XXII

943. *Where the [Purple] Martins Roost.* By O. Widmann. *Ibid.*, Oct. 2, p. 183. — Many thousands, late in August, roost in the willows below St. Louis, Mo. The article forms a very interesting chapter in this bird's history, hitherto unwritten. For. & Stream. XXIII

1063. *Die Purpurschwalbe (Progne subis Baird, Purple Martin).* By H. Nehrling. — *Der Zoologische Garten*, Jahrg. XXVI, No. 1, 1885, pp. 22-27.— History of the species.

The Oologist. 1577. *The History of a Bird Box.* By Harry G. Parker. *Ibid.*, No. 3 May and June, 1886, pp. 31-32.—Notes on *Progne subis.*

Auk, V11, Jan. 1890. p. 93

W. B. H. ... Smithville, Georgia.

BIRDS BUILDING THEIR NESTS.

The Martins were busy conveying light layers of pine bark to the nesting places which I had provided for them. These agile birds fasten themselves after the manner of Woodpeckers to the towering boles of the pine, and with their bills detach bits of bark thin as letter paper. Out of this bark they construct the foundation and major portion of the body of their nests.

The Martins are building earlier this spring than usual. Indeed they arrived two weeks earlier than I ever saw them before — the first (a male) reaching here the 12th of February.

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O. & O. 14. July, 1889. p. 108.

twigs in the crotch of the tree an immense head illuminated by a pair of great staring eyes. On coming home he told his discovery. I did not lose much time in going to the tree. Climbing was easy and in a few moment's time I had the set of two white and fresh eggs safely stowed away in my collection box. Those only who have made like finds can imaginge my feelings of exultation. I would not have exchanged my seat on that old mossy tree by that Owl's nest, for any King's throne. Such was my first Great-horned Owl's nest,

Chalybea Maxim Beitr III, 354 "subtus alba" (Cayenne)
Hirundo violacea Gmel 1, 1788 1026 ✓
not in Bos. Soc. Caerulea Vieill Ois. Am. 1807 5-7, pl. XXVI-XXVII
Not " Bos. Soc. versicolor " Nouv Dict. XIV, 509
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O and O. X. Oct. 1885. p. 158.

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Auk VII, Jan. 1890. p. 93

Mus. Auduboniana Nos. cat. 7287, 16 Catalog
1, 57

Crayon by Audubon
B. Meisel
Cor. 7th and Franklin

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19

Destruction of Birds by Cold.

The past three weeks have been very wet and cold, with frost three times and snow once.

May 31, in the morning, there was about two inches of snow, and still snowing, and changed to cold rain about 10 o'clock and rained all day. Saturday morning cold and cloudy, and the thermometer very near the freezing point.

File under Martin.

At a friend's place where I go fishing, etc., there were about one hundred pairs of Martins and Tree Swallows breeding, and on Saturday morning they were nearly all dead; the children showed me many of them. My friend says he took seven dead Martins in one box, nine under another. Other boxes, not easy to get at, were full of dead ones, and they could be seen partly out of the holes. He told me that at a railroad bridge, near Chester, he could have picked up a *bushel* basket of dead Cliff Swallows.

He goes after his mail in a boat about three miles, and on that morning he saw two Least Bitterns dead by their nests, picked up young ducks so cold they could not swim, which died in the boat before he got home.

The children brought me a Least Bittern that they found sitting on a boat so cold it could not fly, which they warmed and fed. It was too soiled for skinning so I let it go; it ran off to the marsh.

May 24, I got two Hudsonian Godwits here, and saw a White Pelican.

June 7, I got a Black Tern that is white under around the neck and from the bill to nearly even with the eyes. The back and top of the head the usual color of the back. There is no other Tern that will answer that description, is there?

That makes the eighth specimen that is white and partly white, all collected by myself or for me, I have in my collection.

Delos Hatch.

Oak Centre, Wis.

O & O. XIV. Aug. 1889 p.122

Massachusetts Bird Notes.

Progne subis. — Mr. A. H. Kirkland, late entomologist to the Massachusetts State Board of Agriculture, informs me that while observing the ravages of the fire-worm (*Rhopobota vacciniana* Pack.) in the cranberry bogs of Plymouth and Barnstable counties, he found the Purple Martins feeding freely on the imagos of the pest. The Martins were abundant at many of the bogs, a Martin box on a pole being, according to Mr. Kirkland, "apparently as much a necessary adjunct to a well-regulated bog as a dyke or a cranberry house."

As two broods of the imagos of the fire-worm are on the wing during the summer, and as the female imagos are most active before laying their eggs, the benefits accruing to the cranberry grower from the presence of the Martins are obvious. Mr. Kirkland states that the cranberry growers estimate that in a term of years they lose fifty per cent of their crops because of the damage done by injurious insects, chief among which is the fire-worm.

Auk, XVIII, Oct., 1901, p. 399.

J. A. Farley, Malden, Mass.

'Revival of the Sexual Passion in Birds in Autumn.'—In addition to the notes of Messrs. Brewster and Chapman which have lately appeared in 'The Auk' on the above subject the following observations may be of interest. From my Journal for September 2, 1898, Jamestown, R. I., I copy the following:—"This morning a number of Purple Martins (*Progne subis*) were seen alighting on the rigging of the small boats anchored in the harbor, they being not uncommon here early in September; later in the morning they were in good numbers (15 or 20 birds) along the roadsides in company with the Tree Swallows. The Martins almost always alighted on the cross bars of the telegraph poles, rather than with the Swallows on the wires. While I was watching two birds, supposedly young, they were seen a number of times to go through the actions of copulation."

Another record was made on September 15, 1898.—"While sitting in the blind (Jamestown, R. I., Round Marsh) a Sharp-tailed Sparrow (*Ammodramus caudacutus*) came and lit near by and performed some interesting antics. The bird would now and then utter a few hurried notes, run a few feet and jump excitedly into the air. The bird also from time to time (five times) went through the actions of copulation on a little, cropped off tussock of grass about the size of its body. I was within a few feet of the bird, being protected by the blind, and am positive that its actions were those of copulation. Possibly this bird was mentally deranged. I took the bird and found it to be a young male, its sexual organs of normal size for that time of season. Two interesting questions present themselves. Is the accompaning non-enlargement of their sexual glands due to their being still non-functional, or is the passion caused by simple sensory, nervous excitement? Is the autumn song period, of some species, correlated with this passion?

The species of birds that have now been recorded, as far as I know, as showing this autumn habit, include the Bluebird, English Sparrow, Bank Swallow, Tree Swallow, Eave Swallow, Barn Swallow (?), Purple Martin and Sharp-tailed Sparrow, and I have no doubt that further observation will add many other species to the list.—REGINALD HEBER HOWE, JR., *Longwood, Mass.*

Auk, XVI, July, 1899, pp. 286-287.

Petrochelidon
lunifrons

Petrochelidon lunifrons

1889

May — Cd. 5 1 — Cd. 17 2 1889. Cd. 15 8 — R. 26 1 — Way 30 (100) — Way 31 2 1890 — M.V. 10 6 (7 ax) — Cd. Way 23 15 — Way 24 (20) — N. Truro 31 (80) 1891

June — Cd. 1 6 — Way 16 20 — Cd. 21 4 1889. Way 1 (100) — Way 10 300 100 1890 — North Truro 1 (50) — 2 (60) — 3 (60) 1891.

April — Wayland 25 12 — 26 6 — Cd. 27 2 1891

" — 25 arr. (7 ax) 94 1894

" — Ball's Hill, Concord 28 1 — 29 (10) 1895

" — Ball's Hill, Concord 22 heard over distinctly (4 P.M.) 23 do 25 do. 27 do Concord 1896 — Ball's Hill 24 heard 1897

May — 2 1 4 1 6 1 7 1 9 hd 12 1 18 4 19 2 23 4 24 2 25 3 Concord 1892

14 hd 15 hd [E. Lex 18 2] 19 2 21 2 22 10 (W. Bed.) 27 1 28 1 29 2 Concord 1893.

Concord 1 hd 3 hd 6 (2) — Cd. 14 2 — 1894

Cd. 5 10 — Cd. Pond N. Truro 19 6 — 20 6 — 1895

June — 3 2 — 4 2 — 7 1 — 19 1 Concord. 1892. — Ball's H. Cd. 22 (2) 1897 — B.H. 1 1 — West Bedford 23 Colony 7 nests, Parker's barn, W 98 1898

Concord 26 2 — 27 2 — 30 2 1893.

July — 1 1 — 2 1 — 10 2 — 12 (7) — 14 (40) — 15 hd. — 19 hd. — 21 2 — 23 4 — 24 2 — 34 4 Concord. 1892.

1 hd — 2 hd — 3 5 — 5 2 — 6 1 — 7 1 — 12 1 — 18 3 — 20 (3) — 22 1 — 23 (8) (Ball's H.) Concord. 1893.

August — 1 2 — 2 1 — 13 2 — 26 (2) — 30 (2) Concord 1892

" — 1 (3) (Keyes field) 7 (6) high in air over river — 8 1 — 14 (2) — 16 (2) — 17 1 — 19 1 — 21 1 — 24 2 — 26 2 Concord 1893.

" — Cd. rim 12 1 — 1894

September 4 1 — Concord. 1893.

May — Ball's H. 3 hd — 7 hd — 9 1 — 13 hd — 17 2 — 18 hd — 22 hd Concord 1898 — W. Bedford 1 hd — 3 hd — B.H. 4 hd — W. Bedford 12 (7) — B.H. 18 12 — B.H. 19 20 — B.H. 20 30 — B.H. 21 20 Concord, 1899

lunifrons

Petrochelidon lunifrons

1890 Mass.

June 1 Wayland.— A strong colony nesting on the N. side of a small barn which stands on the edge of the meadows within 100 yds. of the river. The farmer tells me that they built last year on the S. side but having nothing to attach the nests to, more than some slight moulding over the seams in the boarding, most of the nests fell down before the young were out. This year he nailed a wide strip of board along the north side about a foot below the eaves and ~~about~~ thirty feet in length. On this there were 60 nests, crowded together in a continuous row and, in places, in a double tier one above the other. The nests varied considerably in size and shape but the average shape was much that of a gourd with a distinct neck in the end of which was the entrance hole. Every inch of space between the strip and the eaves was filled and four or five nests ~~in various stages~~ had been begun on the precarious vertical wall beyond the end of the strip. ~~The~~ Several of these the birds were at work. They plastered mud pellets in a cluster on the surface of the board and then built out sideways and upwards until the structure assumed a crescent shape like the half of a deep saucer. When this stage was reached the pair took formal possession spending much time sitting cuddled close together twittering their mutual congratulations. Then one or both would fly off and soon return with a great pellet of wet mud in the bill. Sitting inside the saucer this would be worked in on the outer edge in place by a rapid grinding motion of the head. Sometimes when a bird ~~would~~ brought a particularly large and unmanageable pellet it would merely hold it in place while its mate did the plastering, using its bill like a trowel (does not this account for the broad shape) and going around the edges of the pellet several times in succession the heads of the two touching most of the time making a pretty picture. All of these busy workers had their bills coated with dry mud. I did not

*2 (Continued) Petrochelidon lunifrons

1890 Mass.

June 1 Wayland.) See them getting mud but Faxon who visited the colony after a heavy rain observed them collecting it about puddles in the road crowding together and holding their wings open above their backs. He also saw a bird stealing mud from a neighbor's nest and working it into its own. Collecting mud. Stealing mud.

By far the greater part of the colony had finished their nests and were doubtless incubating although while I was there they seemed to spend most of their time in looking out keeping their heads moving continually from side to side and up and down with a rolling motion the white forehead gleaming like a spot of light in the dark opening. Birds were very noisy keeping up a continual low talking, rather frog-like in tone, and making the cork-in-the-bottle sound which I take to be the song of the male. The call-note, given when flying or as a greeting to and by incoming birds, is tchĕr or tchĕs-tchĕr very like the note of the Bank Swallow but fuller and harsher. The note of alarm or apprehension is *jeer* given in a high, shrill tone.

Although I did not often see more than one bird at a time at the entrance hole, two and sometimes three would come out of ~~the~~ a neighboring nest when a general alarm was sounded. At such a time the whole colony would turn out in a few seconds and dash excitedly about in a dense cloud uttering the shrill *jeer* already described. After a minute or two they would begin to return and very soon the normal quiet was resumed. Incoming birds sometimes swept up directly into the nest but often poised for a moment in front of it beating the wings rapidly like Hummers. At one time when there was a strong wind blowing several birds in succession poised on set wings and hung suspended like a Hawk. This I have never seen a Swallow do before. The manner of entering

#3 (Continued) Petrochelidon lunifrons.

1890 Mass.

(Journal Wayland) The nest varied. Some birds shot directly in merely checking their speed and closing their wings at the last moment. Others alighted with the head at the entrance, the body beneath the neck with the back downward and the tail pressed firmly upward and after clinging in this position for a minute or two clambered rather awkwardly in with a fluttering of the wings.

Sometimes a bird would attempt to enter a nest evidently not his own when the rightful owner would appear at the hole, seize the intruder by the feathers of the throat or breast and thrust him forcibly outward often following and clinging to him the two whirling down nearly to the ground together.

As a whole, however, the members of this feathered community seemed to live together in a spirit of mutual good nature and forbearance but, like most simple country folk, they were evidently much given to gossip and ~~perhaps~~ to an excessive interest in each others family affairs. Thus when a bird arrived from a distance his call was sure to be answered by a general chorus of cries from the nests the occupants of which, almost to a bird, would thrust out their heads for a moment and cram their necks about to discover if possible just what the stranger was doing or how much mud he had brought.

The paired birds when together in a half finished nest sit close to one another and sway with a sideling motion continually crowding one another and often quivering their half-opened wings.

A dog and cat came under the row of nests several times without apparently alarming, or even attracting the notice of, these Swallows.

Petrochelidon lunifrons

1890 Mass.

June 4 Wayland.— Faxon found a large colony breeding at the first farm east of the lower bridge. He counted 95 nests on one side of the barn and 26 on the other. Most of them were on strips put up by the farmer to support them, some in tin pans nailed to the side of the barn with the open side ~~out~~ up. The farmer told him that he put up these pans to hold some young which had fallen to the ground. Upon their arrival the next spring the birds were shy of them but soon took possession & built in every one. *Large colony* *nests in tin pans*

" 10 Visited the colony above mentioned. The nests in pans (5 in all) are built precisely like those on cleats and have a neck projecting out over the edge of the can. Three English Sparrows hanging about alighting on the eaves and peeping one at the nests. The farmer was getting his gun to shoot them when we drove up. He says he has seen them pull the young Swallows from the nest & kill them. *nests in pans* *Passer hanging about & killing young.*

On May 28 Mr. Faxon saw a "bird pilfering mud from the nest of its neighbor during his absence from home" (Bolles May 28/'90) *Pilfering mud fr. nest.*

1891

June 1-3 North Truro.— A colony of about 30 pairs nesting in an open barn cellar nearly filled with manure the majority of the nests attached to the beams which supported the floor above but resting directly on slats nailed to these beams. A few nests were ranged along the sills which were laid on the top of the stone underpinning and in the very midst of these were two Barn Swallows' nests, the two species mingling in perfect harmony. None of the Eave Swallow's nests had pronounced necks but all of those that were finished had the tops domed & the entrance in the side. *Nesting in barn cellar with Barn Swallows.*

1896

Apr. 22 Concord. Noted first arrival to-day, heard distinctly at Ball's Hill in the late afternoon

Massachusetts.

1892.

Petrochelidon lunifrons.

July 14 Lowered. A flock of fully 40 Cave Swallows passed over the Buttricks house this evening sometime after sunset. They were rather high up and were moving towards the S.W. So far as I could make out there was not a single Swallow of any other species with them. I do not think they were migrating. Probably it was merely a flight to the roost. By the way where and how do Cave Swallows roost? Investigate this!

July 19 The Cave Swallow feeds its young on wing the two birds meeting in the air and rising straight upward six to eight feet face to face until the bills finally come together one is both uttering the tcha note rapidly the while. I saw this tonight shortly after sunset when the two birds engaged were fully 300 ft. above the earth.

Petrochelidon lunifrons.

Concord, Mass.
May. 23. 1898.

May

Mr. Buttrick tells me that there is one inhabited Cave Swallow's nest on Mr. Hayes's barn. He saw the birds enter it yesterday. Mr. Hayes's farmer says that several pairs nested there last year. Mr. Buttrick calls them "Arabrador Swallows" & says that this was the name by which they were commonly known in Concord when he was a boy.

Cave Swallow

Petrochelidon lunifrons.

Concord, Mass.

1898. June 23. In the afternoon I crossed the river and visited Parker's where I found a small colony of Eave Swallows. There were seven nests on the E. side of the barn. Parker says that he counted 78 three years ago but last year during the continual heavy rains of early June most of the nests fell down and the birds left.

Peterborough, New Hampshire.

1898. July 5 to Aug. 15. From one or two to five or six were seen almost daily on Ben Mere farm from July 15th to 31st. Early in August some good-sized flocks appeared there associating with the Barn Swallows and perching on telegraph wires. (August 1(20), 2(40), 3(30), 12 heard).

Petrochelidon lunifrons

1896. **Penobscot Bay, Maine.**

Deer Island. June 28 (Emerson form)

June 29 N.E.-7 or Islands (N. Brist Haven), A single bird flying over the sea among these islands

July 8 Isle au Haut. At least a dozen seen, seven of them together hawking for insects in a sheltered cove over the sea. There must be a breeding colony somewhere on this island.

" 15 Sedgwick } I have never before seen Barn Swallows in anything like
" 16 Brooksville } the numbers that I observed in these towns on the above dates nor have I ever seen them so generally & evenly distributed. In driving over about 15 miles of country roads we found them almost everywhere. We saw no large colonies - certainly not over a dozen or fifteen nests on any one building - but apparently every house or barn the eaves of which furnished suitable accommodations had one or more nests. On one house I saw six nests crowded together in a bunch and supported on some carved wood work placed against the end of the house well up under the peak of a gable end of the roof.

In a number of places we saw broods of young sitting in Gutters on sloping roofs of buildings, their parents feeding them, but none were seen among the young Barn Swallows & White-Bellies perched on fences or bushes by the wayside or along the edges of meadows. I wonder if the Barn Swallows are really peculiar in this respect.

June 16-22 Matinicus Islands. Common - fide H. K. Jr.

Birds of Upper St. John.
Batchelder.

33. **Petrochelidon lunifrons** (*Say*) *Lawr.* EAVE SWALLOW.—Common at Grand Falls. Abundant at Fort Fairfield.

Bull. N.O.C. 7, April, 1882, p.110

Birds within Ten Miles of Point de Monts, Can. Comeau & Merriam

25. **Petrochelidon lunifrons.** CLIFF SWALLOW.—A small colony nested in the deserted Hudson's Bay Trading Post at Godbout this year.

Bull. N.O.C. 7, Oct, 1882, p.235

Dwight, Summer Birds of
Prince Edward Island,

Petrochelidon lunifrons. CLIFF SWALLOW.—A common bird, locally distributed, and nesting in colonies under the eaves of barns and houses.

Auk X, Jan. 1893. p.12

Summer Birds of Bras D'Or Region
Cape Breton Id., N.S. J. Dwight, Jr.

41. *Petrochelidon lunifrons.*

Auk, 4, Jan., 1887. p.16

Birds, Haute Island, Bay of Fundy, July 26, 1887. W.L. Bishop, Kentville, N.S.

Cliff Swallow, *Petrochelidon lunifrons*; rare.

O. & O. XII. Sept. 1887 p.146

Breeding Dates of Birds in Kings County, N.S. Watson L. Bishop.

Cliff Swallow (*Petrochelidon lunifrons*). June 10, 20. July 7.

O. & O. XIII. Mar. 1888 p.45

Birds of Toronto, Canada,
by James H. Fleming.
Part II. Land Birds.
Auk, XXIV, Jan. 1907, p.82,

226. **Petrochelidon lunifrons.** CLIFF SWALLOW.— Regular summer resident, usually from early in May to the middle of August; earliest record April 23, 1890, latest September 8, 1906; breeds locally and is not by any means as common as it was.

47.

Summer Birds of the Cobalt Mining Region
Nipissing District, Ontario
by Frederick C. Hubel. Auk, XXIV, Jan. 1907, p.87,

47. **Petrochelidon lunifrons.** CLIFF SWALLOW.— Found only at North Temiskaming, where they are quite common.

Summer Residents on Southwest Coast of Maine. T. H. Montgomery, Jr.

612. Cliff Swallow. Abundant at Boothbay. I found several houses, the eaves of which were lined by their mud nests. In the first week of July several of the nests contained young, nearly fledged.

O. and O. 15. Nov. 1890. p. 162

Glen House, N. H.

Petrochelidon lunifrons

1884

July 12. Young on wing at the Glen House where a large colony was breeding under the same eaves (of a barn) as in 1869.

Bds. Obs. in Franconia, N.H. June 11-21 '86, and June 4-Aug. 1, '87, W. Faxon

46. Petrochelidon lunifrons. EAVE SWALLOW.—Common.

Auk, V. April, 1888. p.152

Birds Obs. at Bridgewater, N.H. July 12-Sept. 4, 1883. F.H. Allen

Petrochelidon lunifrons.—One colony seen.

Auk, VI. Jan., 1889. p.77

Birds Obsvd. near Holderness, N.H June 4-12, '85, and 4-11, '86. W. Faxon

39. Petrochelidon lunifrons. CLIFF SWALLOW.—Common.

Auk, V. April, 1888. p.150

Bds. Obs. at Franconia and Bethlehem N.H. July-August, 1874. J.A. Allen

31. Petrochelidon lunifrons. Abundant.

Auk, V. April, 1888. p.154

Petrochelidon lunifrons. – Aug. 13, 15 Rye Beach, N.H. 1868.

Petrochelidon lunifrons. – July 28 (a.); Aug. 7, 23 (a.); Sept. 2 (vanb.) Rye Beach, N.H. 1871.

Petrochelidon lunifrons. – July Rye Beach, N.H. 1872.

Rye Beach, N.H. July 23-24 1885.

111. Petrochelidon lunifrons. – Abundant – flocking

Breezy Point, Warren, N.H.

1894. Petrochelidon lunifrons

Mitchells Warren

June 16 - 17 . 19 [illegible]

" [illegible] 30[illegible]

Breezy Point, Warren, N.H.

1895. Petrochelidon lunifrons

May

29[illegible] 2/22 nests [illegible] 3/4 [illegible] 30 [illegible]

[illegible] 4[illegible]

" 5[illegible] [illegible]

[illegible]

Mass. (near Concord).

1887
May 8[1] 10[1] 11[1] 13[1] 28[6]
June 2[6] 4[15] 6[2] 7[2] 17[2].
July 26[1]
Aug. 13[1]

Petrochelidon lunifrons

W. Middlesex Co. Mass.
June 25-30, 1889.

Petrochelidon lunifrons

West Townsend---A colony of about twelve pairs nesting under the eaves of a barn about two miles west of the village. None others observed anywhere in the region.

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Sept. 5;
great numbers of Cliff Swallows are passing over, taking a south-easterly direction.

O. & O. XI. Jan. 1886. p. 1

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Sept. 6; saw to-day an immense flock of Cliff Swallows flying in a southerly direction. They were the last seen.

O. & O. XI. Jan. 1886. p. 1

Birds of Bristol County, Mass.
F. W. Andros.

Petrochelidon lunifrons (Say.), Cliff Swallow.
Summer resident, locally common. Breeds.

O. & O. XII. Sept. 1887 p. 140

Birds Known to Pass Breeding Season nr. Winchendon, Mass. Wm. Brewster

50. Petrochelidon lunifrons.

Auk, V, Oct., 1888. p. 389

Bds. Obs. near Sheffield, Berkshire Co, Mass. June 17-26, '88. W. Faxon

46. Petrochelidon lunifrons. EAVE SWALLOW.—Common.

Auk, VI. Jan., 1889. p. 45

Bds. Obs. near Graylock Mt. Berkshire Co. Mass. June 28-July 16. W. Faxon

Petrochelidon lunifrons

41. Petrochelidon lunifrons. EAVE SWALLOW.—Common. According to Dr. Emmons, this bird first appeared in Williamstown in 1825.*

* Amer. Jour. Sci. and Arts, XXVI, 208, 1834.

Auk, VI. April, 1889. p. 102

1895. Falmouth, Mass.
July 17[1] 27[1d] 28[1d]

60. *Petrochelidon lunifrons* - June 11 E. Mass. 1885.
19. Princeton & No. Rutland, Mass. June, 15-1886.
Petrochelidon lunifrons Only 1
Falmouth, Mass. 1889.
29 *Petrochelidon lunifrons* July 25

1901 Petrochelidon lunifrons

May 15 A small colony nesting under eaves of barn on Bolton road. About 20 nests on which the birds were at work.

June 6. The largest colony I have ever seen nesting under the eaves of a long barn about half-a mile from the Bolton road colony on the road to Harvard. On both sides of the barn the nests were built on broad cleats put up, the farmer told me, by his grandfather about 25 years ago. On one side ~~[illegible]~~ I counted 172 nests. They were closely crowded together in a single tier & stretched without the slightest break the entire length of the barn. Nearly all were completed with the birds heads showing at the entrances. On the other side there were vacant gaps but I counted 110 nests many of which were incomplete. Here there was a double tier in places. Only a few birds were flying about scarce half a dozen being on wing at any one time. The owner of the place values the colony highly. He says they eat all the mosquitos. The barn stands near the edge of extensive river intervals.

Lancaster, Mass.

Connecticut, June, 1893.

Petrochelidon lunifrons

June 6 (building) - Saybrook
" 21 - Vernon
" 23 5 25 6 - Andover

The only bird seen near Saybrook was collecting mud at a roadside puddle and tolling it up under the eaves of an old barn. Clark says that one or two pairs have nested on this barn for several years past. It is the only breeding station he knows.

At Andover Barn Swallows were not uncommon but we did not ascertain where they were nesting. Those observed were flying up & down the course of the river feeding. It is probable that we made undue allowance for the chances of seeing the same birds several times & that more than three numbers noted really came under our observation.

Birds of the Adirondack Region.
C. H. Merriam.

49. **Petrochelidon lunifrons** (*Say*) *Lawrence.* CLIFF SWALLOW.—Breeds at suitable localities.

Bull. N. O. C. 6, Oct, 1881, p. 229

Birds Tioga Co. N. Y. Alden Loring.

153. Cliff Swallow. Rare.

O. & O. XV, June, 1890, p. 82

Notes on the Spring Migration of Birds in the Northern Adirondacks [Ayton], New York [1901].

April 16 to 20.

Cliff Swallow. Several flocks.

E. A. Sterling, Brooklyn, Pa.
Auk, XIX, July, 1902, p. 298.

Notes concerning certain birds of Long Island, N. Y.
By William C. Braislin, M. D.

Petrochelidon lunifrons. According to the personal testimony of Mr. W. W. Worthington the Cliff Swallow was formerly rather common locally on Long Island. As a breeding bird it is, now, certainly rare. It seems to migrate along the ocean coasts much less abundantly than other species of swallows. Though often looked for, the writer only obtained his first Long Island specimen Sept. 5, 1904, at Rockaway Beach.

Auk, XXII, Apr., 1905, p. 169.

Birds of Washington Co. Oregon.
A. W. Anthony.

87. Petrochelidon lunifrons. CLIFF SWALLOW.—Abundant summer resident. A colony of about two hundred built at Beaverton this spring, for the first time in the memory of its inhabitants.

Auk, 3, April, 1886. p.169

Birds of Fort Klamath, Oregon. J. C Merrill. Remarks by Wm. Brewster

Petrochelidon lunifrons.—Common, nesting abundantly in the buildings about the Fort.

Auk, V. October, 1888. p.360

For a note on Petrochelidon lunifrons see Chondestes grammica under "Additions to the Avifauna of North Carolina in 1889."

O+O. XV. Feby. 1890. p. 23.

For
Description of a Hybrid between the Barn and Cliff Swallows.
Texas. by Edgar A. Mearns,

Auk, XIX Jan. 1902, pp. 73, 74

See Hirundo erythrogastra

Albinism and Melanism in North American Birds. Ruthven Deane.

I have seen specimens of *P. lunifrons*, in pure white dress.

Bull. N.O.C. 1, April, 1876, p. 21

ALBINOS.—A *perfectly pure* albino *Petrochelidon lunifrons* was seen to-day in possession of a taxidermist in this city. The bird was shot here a day or two ago and sent to be mounted. Unfortunately it was shot with coarse shot and somewhat multilated, but otherwise it is perfect, and one can hardly hope to see a finer specimen.

A. W. Anthony. Denver, Col.

O. & O. X. Oct. 1885. p. 152.

Shelburne, N.H.

Petrochelidon lunifrons.

1884.

July 5

In an open cellar under Philbrook's barn several pairs of Eave Swallows have their nests. These are curiously placed – in mortice holes in some large beams which support the floor above. There are at least a dozen nests thus situated but only two are at present occupied the others being apparently old ones more or less broken down and dilapitated. The inhabited nests have round entrance holes but little larger than the bird's body but neither has any approach to a neck. (one)

Notes on the Habits of the Cliff Swallow (*Petrochelidon lunifrons*). — Within my collecting grounds is a locality where numbers of these birds have nested for many years. This is a shed, open only on one side, where the birds have attached their nests to the sleepers of the loft. In the spring of 1878 they returned about the usual time and soon began repairing old nests or constructing new ones. One day, while watching them, I noticed one bird remained in her half-finished nest, and did not appear to be much engaged. Soon a neighbor, owning a nest a few feet away, arrived with a fresh pellet of clay and, adjusting it in a satisfactory manner, flew away for more. No sooner was she out of sight than the quiet bird repaired to the neighbor's nest, appropriated the fresh clay and moulded it to her own nest! When the plundered bird returned, no notice was taken of the theft, which was repeated as soon as she was again out of sight. I saw these movements repeated numerous times, but was called away, and when I again returned both nests were completed.

In the same place a nest remained undisturbed, and was occupied by probably the same pair of birds for several seasons. This spring they returned to the old nest, and all appeared prosperous, until one day I noticed a number of Swallows engaged in walling up the entrance of this old nest. This, and the outline of a new nest over the old, was soon completed. I then broke open the closed nest and found within the dead body of a Swallow. This bird had probably died a natural death, and the friends being unable to remove the body, and knowing it would soon become offensive, adopted this method of sealing it up. — F. H. Knowlton, *Brandon, Vt.*

Bull. N.O.C. 6, Jan., 1881, p. 55.

Cliff Swallow, (*Petrochelidon lunifrons.*) May 26th I visited a "colony" of Cliff Swallows, accompanied by my friend George H. Jennings, M. D., who is an enthusiastic ornithological student.

About one mile from Griswold P. O., there is a barn that has for several years attracted large numbers of these swallows. Their nests are placed under the barn, upon the sides of the chestnut timbers that support the floor, and are composed of mud which the birds bring from a swamp near by.

As the Doctor and I stepped under the barn the occupants of the forty-seven nests eyed us curiously for a few seconds, and then with a musical "tweet" flew out. The chestnut patch on the forehead of the Cliff Swallow is very noticeable as their heads protrude from the "nose" of their bottle-shaped mud nests.

The swallows find a protector in the person of Mr. Ezri Reynolds, who warmly appreciates the honor which they confer upon him by returning every spring to his barn, and to his alone. As they rear two broods a season and feed their young upon insects, the number destroyed by them must be incalculable. Any person molesting the swallows in any way would be apt to arouse the ire of the kind hearted farmer, who rightly considers them his friends.

Notes from Jewett City, Conn.

Chas. Edward Prior

O.&O. IX, Aug. 1884. p. 100-101

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Chas. Edward Brice

O.&O. IX, Aug. 1884. p. 100-101

Notes from Jewett City, Conn.

The Cliff Swallow is not known to breed in the southern portion of its United States range. Nests south of the parallel of 38° are very rare. The following note from Waverly, Miss., 33^{34}, is therefore the more interesting: On April 10, a pair of these Swallows appeared and soon commenced house-building. Two broods were raised and the nest, which was a great curiosity in that country, is still preserved. Had one seen the thousands and thousands of these Swallows, which one evening in the last of July were nesting on a marsh near Red Rock, Indian Territory, he would have been tempted to believe that Prof. Aughey's two thousand nests had emptied their entire contents on this particular place.

CLIFF SWALLOW, (*Petrochelidon lunifrons*). Abundant Summer resident. Arrives from May 3 to 8. Breeds, nests beneath the eaves of barns. It is no uncommon thing to see a hundred or more of the gourd-shaped mud nests of this species beneath the eaves of one barn. The nests are repaired and used for many years in succession if not disturbed. A few ignorant farmers destroy them as they do not want the Swallows around their barns, but usually they are protected. This species associates closely with the preceding, being equally industrious and social, and much more abundant. For a few weeks before their departure for the South, large numbers of Barn and Cliff Swallows frequently alight upon the telegraph and telephone wires, especially during damp and rainy weather, hundreds of them often being on the wire at once.

C. C. Tracy. Taftsville, Vt.

O. & O. X. May. 1885. p. 71

Double Set of Cliff Swallow's Eggs.

Being in need of a few sets of Cliff Swallow's eggs (*Petrochelidon lunifrons*) I started with a friend of mine, one evening in the early part of June, 1888, for a colony where I had previously obtained their eggs.

We found the colony much larger than when I last visited it, and most of the sets were fresh and complete. After taking several sets of five and six eggs, I put my hand in a nest which seemed to be literally full of eggs, and I thought at once of the dreams I had had of taking phenomenally large sets of eggs.

The nest was in a difficult position to get at, and the eggs could only be taken out one at a time. I counted them up to eight to myself and that was too much, so I counted out aloud "9, 10, 11," which cleaned out the nest. It had got too dark to examine them, so packing them up carefully we started for home.

Upon examining them we could see at once that they were laid by two birds, as six of the eggs were much larger than the other five, and much more heavily marked, and it was further proved upon attempting to blow them. In the six eggs the incubation was nearly completed, while in the five eggs, two of them were fresh, and in the other three incubation had commenced, showing that this set had been sat upon from the time the first one was laid.

C. E. Hoyle.

W. Millbury, Mass.

O & O. XIV. June. 1889 p. 88-89

1877. *Cliff Swallow Nesting in December.* By H. D. Moore, M.D. *Ibid.*, p. 104. For. & Stream. Vol. 34 Feb. 27.

2003. *Changing Habits in the Nesting of Birds.* By L. T. Meyer. *Ibid.*, Vol. II, No. 2, Sept., 1886, p. 17.—*Chætura pelagica*, *Passer domesticus*, *Petrochelidon lunifrons*, *Sitta carolinensis*, *Sialia sialis.* Coast Naturalist.

Birds of Ventura Co., California.
B. W. Evermann.

154. * Petrochelidon lunifrons. (612.) CLIFF SWALLOW.—An abundant summer resident. In 1881, a colony of more than a hundred pairs nested in a shed in Santa Paula. The nests were fastened to the rafters, much after the manner of the Barn Swallow. Many horse-hairs were plastered into the nests and these often caused the death of the builders. I took from this shed some six or eight dead birds which I found hanging about the nests, they having gotten entangled in the hairs.

Auk, 3, April, 1886. p. 183

BULLETIN

OF THE

NUTTALL ORNITHOLOGICAL CLUB.

Vol. III. JULY, 1878. No. 3.

THE EAVE, CLIFF, OR CRESCENT SWALLOW (*PETROCHELIDON LUNIFRONS*). *

BY DR. ELLIOTT COUES, U. S. A.

Discovery of this notable Swallow, commonly attributed to Say, was made long before Long's expedition to the Rocky Mountains, though the species was first named in the book which treats of that interesting journey. The bird may have been discovered by the celebrated John Reinhold Forster; at any rate, the earliest note I have in hand respecting the Cliff Swallow is Forster's, dating 1772, when this naturalist published in the *Philosophical Transactions* "An Account of the Birds sent from Hudson's Bay; with Observations relative to their Natural History; and Latin Descriptions of some of the most Uncommon," — a rather noted paper, in which seven new species, viz., *Falco spadiceus*, *Strix nebulosa*, *Emberiza* [i. e. *Zonotrichia*] *leucophrys*, *Fringilla* [i. e. *Junco*] *hudsonias*, *Muscicapa* [i. e. *Dendræca*] *striata*, *Parus hudsonicus*, and *Scolopax* [i. e. *Numenias*] *borealis*, are described, with references to various other new birds by number, such as "*Turdus* No. 22," which is *Scolecophagus ferrugineus*, and "*Hirundo* No. 35," which is *Petrochelidon lunifrons*. The next observer — in fact, a rediscoverer — was, perhaps, Audubon, who says that he saw Republican or Cliff Swallows for the first time in 1815 at Henderson, on the Ohio; that he drew up a description at the time, naming the species *Hirundo republicana* [*sic*]; and that he again saw the same bird in 1819 at Newport, Ky., where they usually appeared about the 10th of

* By permission, from advance sheets of the "Birds of the Colorado Valley," Vol. I.

Petrochelidon lunifrons X Tachycineta bicolor

A HYBRID BETWEEN THE CLIFF AND TREE SWALLOWS.

BY FRANK M. CHAPMAN.

THE American Museum of Natural History has recently acquired from the collector what seems to be a hybrid between *Petrochelidon lunifrons* and *Tachycineta bicolor*. The specimen (No. 78,119 Springfield, Mass., Aug. 20, 1902, Leon C. Holcomb) is apparently a bird of the year and, in addition to presenting evidences of hybridism, exhibits also albinistic characters, though it is possible the latter may be a result of hybridity. Generally speaking this specimen resembles *bicolor* below and *lunifrons* above, the rusty and buff markings of the last named species, however, being, in this supposed hybrid, white. A more definite understanding of this interesting bird's color and markings may be gathered from the appended comparative tables:

FORM.

T. bicolor. ♂ im.	*Hybrid.* ♂ im.	*P. lunifrons.* ♂ im.
Bill.		
Medium; width at nostril 4.5 mm. Nostril elliptical; a well-developed operculum.	Medium; width at nostril 4.5 mm. Nostril circular; a well-developed operculum.	Rather heavy and broad; width at nostril 6.3 m. Nostril circular; no operculum.
Wing.		
Long, 118 mm.	Short, 103 mm.	Medium, 105 mm.
Tail.		
Medium, 50 mm.; fork, 9 mm. deep.	Short, 40 mm.; fork, 4 mm. deep.	Medium, 45 mm.; fork, 2 mm. deep.
Feet.		
Slender, tarsus 11 mm.; middle-toe, 11 mm.; nail, 4 mm.	Medium, tarsus, 11 mm.; middle-toe, 11 mm.; nail, 3 mm.	Rather stout, tarsus, 11 mm.; middle-toe, 11 mm.; nail, 5 mm.

Retrochelidon lunifrons X Tachycineta bicolor

T. bicolor. ♂ im.	*Hybrid.* ♂ im.	*P. lunifrons.* ♂ im.
	COLOR.	
	Under parts.	
White, sides of breast dusky sometimes forming a faint breast band.	White, a well-defined dusky breast band; left side of throat and abdomen washed with yellow.	Throat dusky black more or less mixed with cinnamon and, usually, whitish; breast and sides dusky washed with rufous.
	Under wing-coverts.	
Dusky, bend of wing whitish.	White, bend of wing partly yellow.	Dusky washed with rufous or cinnamon.
	Under tail-coverts.	
White.	White.	Mixed dusky and rufous or cinnamon.
	Upper parts.	
Uniform dusky slate or grayish brown.	Forehead white, a faint yellowish tinge; pileum sooty black with slight steel-blue reflections; a well marked nuchal collar white faintly tinged with dusky and yellow; back like pileum the feathers basally white; rump white, slightly tinged with yellow anteriorly.	Forehead cinnamon, usually mixed with dusky and sometimes white; pileum dusky black with slight steel-blue reflections; nuchal collar grayish brown, back somewhat paler than pileum, tipped with buffy, rump ochraceous buff.
	Upper tail-coverts.	
Dusky slate or grayish brown.	White tipped with fuscous.	Grayish brown, edged with buffy.
	Tail.	
Dusky slate or grayish brown.	Fuscous, inner web of outer feather white, except at end; outer web of three outer feathers edged with whitish.	Grayish brown faintly iridescent, with indications of a white terminal mark on the inner web of the outer feather.

Retrochelidon lunifrons X Tachycineta bicolor

	Wings.	
Dusky slate or grayish brown, inner tertials lightly edged with white.	Fuscous, tertials faintly edged with whitish.	Grayish brown faintly iridescent, the coverts slightly, tertials more widely, margined with buffy or ochraceous.

It is of course well known that in the Tree Swallow both birds of the year and adults moult before leaving us for the South while the Cliff Swallow migrates before moulting. It is consequently of interest to observe that in this hybrid moult has begun normally with the innermost primaries.

This fact is also of importance in determining the bird's age and, in connection with the unworn condition of the wing-feathers, it leaves no doubt that the specimen is in post-natal plumage.

The radical differences in the character of the nests of the supposed parents of this bird lead one to speculate on the type of nest-structure in which it was reared, but, unfortunately, our curiosity in this direction cannot be gratified.

Auk, XIX, Oct., 1902, pp. 392-4.

Chelodon erythrogastra

Chelidon erythrogaster.

1889

April 25 1 - 29 1 - 30 2 - 1889. 7 (Fax) 1888 17 (Fox.) - 24 1 - 25 25 - 26 10 - 27 15 - 1891.

May 5 7 - 6 1 - 8 1 - 10 1 - 11 4 - 14 6 - 17 6 - 28 1 - 30 6 - 1889. 2 4 - 7 2 - 9 2 - 11 (over) 13 1 - 15 10 - 16 6 - 17 2 - 18 (15) - 19 10 - 22 2 - 23 1 1890

June 1 4 - 9 1 - 14 2 - 21 2 - 1889. 1 6 - 7 1 - 8 6 - 10 15 - 12 6 - 13 2 - 14 8 - 15 4 - 19 6 - 21 4 - 24 6 - 25 4 - 28 175 - 29 10 - 1890

July 7 7 - 16 10 - 31 2 m - 1889. 1 2 - 6 10 - 13 1 - 29 2 - 16 2 - 18 6 - 19 6 - 20 30 - 29 4 - 30 2 1890

Aug. 5 6 m. - 7 2 - 8 2 - 9 4 - 29 1 1889. 1 20 - 2 16 - 3 25 - 17 (50) - 21 6 m. 1890

May 26 4 - 28 8 - 30 10 - 31 2 - 1890. 4 1 - 10 2 1 - 9 1 10 11 - 12 4 - 18 - 19 15 - 20 6 - 23 20 - 25 10 - 28 8 c. - 31 5 1891

1 6 2 8 3 15 4 10 5 4 6 3 7 4 8 2 9 6 10 (12) 11 30 12, 13, 14, 15, 16 8 17, 18 15 19 15 20 (25 c) 22 (10) 23 30 24 35 25 20 28 10 29. 31 Concord 1892

1 10 9 4 10 4 11 3 12 2 13 (200) 14 20 15 10 16 4 17 6 [E. Lex 18 20] 19 6 20 15 21 6 22 8 23 4 [Cd to C. 24 35] 25 26 4 27 15 28 6 29 8 30 6 31. Concord 1893

3 6 4 hd 6 Concord 12. 13 - 14 Concord 15 E. Lex. nest finished Barnstable 18 6 Cd. 19 (15) Cd. 20 (30) Concord 26 4 27 6 28 10 1894

June 1 10 2 10 3 8 1891. (north Truro)

" 1 2 2 2 3 4 4 8 6 2 18 2 21 2 22 2 23 1. Concord 1892.

" 26 4 27 6 30 2 1893. (Concord)

" 3 15 4 10 5 12 8 7 nests 14 birds 9 10 10 6 11 8 1894 (Great Id., Hyannis; Wareham)

July 1 10 2 6 3 2 4 6 6 2 7 2 9 25 yng 14 ad (count) 10 8 13 20 14 (30) 15 4 broods 16 20 17 20 18 10 19 20 21 10 22 (30) 23 6 24 10 26 15 27 (75) 29 15 31 75. Concord 1892. 1892

3 30 (young mt) 5 12 6 15 7 15 12 20 13 20 14 25 18 (20) c 20 (30) (20) 10 22 20 23 50 29 1 30 (2) (1) 31 1 Concord. 1893.

9 (C. Reservoir St) 11 (5) (C. (Chas Riv.)) 25 10 Cd. 1894

August 1 50 2 4 3 30 4 10 5 12 4 13 20 14 (25) 15 10 17 20 21 (7) 22 (6) 23 2 24 1 26 (2) (7) 27 2 28 4 29 2 30 (5) 31 (5) Concord 1892

" 2 (5) (10) 3 5 5 (10) (coursing low over field) 6 2 7 (3) 8 (100) 10 (5) 11 (7) 12 (5) 13 (7) 14 3 16 3 17 (8) 19 2 20 (8) 21 (5) 24 6 26 12 27 5 28 (12) 30 10 31 8 Concord 1893.

" 5 5 11 1 12 (4) Cd. W. Cd. rive 1894

Sept 1 (8) 3 5 4 (7) 5 (5) 6 (20) 7 (6) 8 3 9 (12) 16 (2) Concord 1892

2 (2) 1 - 3 (3) - 4 3 - 7 (12) (24) Flying south high up at sunset. 9 (12) sunset river meadows. Concord. 1893.

C. erythrogaster

April 8 1 - 18 1 - 20 1 - 24 1 - 29 20 - 30 2 Concord 1892

" 5 1 (Faxon) 21 2 (Fax) 22 (6) 24 (3) 25 20 28 15 29 15 30 10 Concord 1893

" 25 "arrival" (Fax) 1894

Chelidon erythrogaster.

B.F. = Barrett farm
B.H. = Ball's Hill

April

B.(Rock M.) 19 (Hoffmann) – Concord 28 (6) 29 (30) (Ball's H.) 30 — 1895 — Mystic Pond 10 ar. Fox. 1892

14 (2) (Ball's Hill) 16 2 (Ball's Hill) 17 hd 18 hd 19 hd 20 hd 21 (3) 12 22 30 Ball's Hill 23 15 24 10 25 6 26 8 27 (30) (Ball's H.) 28 15 29 8 Concord 1896

Ball's Hill 9 (very ad. with 50 Tree Swallows) 21 8 27 8 28 2 29 4 1897. — Ball's Hill 24 (4) 25 hd 26 hd 30 (6) Concord 1898

Sudbury 19 W. Dunn 24 (2) (2) 25 hd 26 hd 27 hd B.F. 28 hd B.F. 29 hd Concord, 1899.

May

Concord 2 10 3 2 4 6 5 20 6 15 7 10 — B. Brown farm/Cd. 9 (2) 12 12 — Eel Pond N. Truro 18 (5) 19 8 20 — Cd. 23 4 — C. Chas. R. behind Cemetery 15 (15) C. — 1895

B.(Rock M.) 6 4 — Cg (orn) 9 1 — Ball's Hill, Concord. 97 1, 2, 3 6 4 hd 7 hd 8 (30) 9 (30) 10 (15) 11 6 12 2 17 20 18, 19, 20 12 Concord 1898

1 hd. — Great M. 2 (100) 3 50 4 (12) 12 4 — B.H. 14 (25) — B.H. 18 20 — Gr. M. 19 50 20 75 — B.H. 21 20 — B.H. 22 20 29 15 Concord 1899.

June

C. (Fields at foot Vassal Barn) 11 3 — Gr. Id. Hyannis 16 to 9 & nest on top blind. — 1895

Cd. Kiv. 22 1 1897 2 2 4 12 5 4 6 4 12 1 22 23 2 Concord 1898

July

August

Cd. 8 50 — Cg (orn) 12 1 — 1895

September

C. erythrogaster

Shelburne, N. H.

1884.

Hirundo horreorum

July. Abundant, breeding in any suitable barn. I have learned something new about them. When the nest is placed on a sloping rafter there is almost invariably near it a crescent-shaped parapet built in the usual manner of mud pellets, but without either finish or lining. These structures I at first supposed to be merely the beginnings of nests abandoned for some reason or other. But to-day (July 21) I discovered that they are regularly occupied by the ♂ while the ♀ is sitting or feeding the young. It would of course require a constant effort on his part to maintain a footing on the smooth, steeply inclined surface of the hard wood rafter but on this artificial platform he can stand at ease or even lie down as I saw one do more than once to-day.

I saw the first young on wing July 12; on the 13th there was a general exodus from the barns but several broods stayed in the nests until the 22nd. For a few days after leaving them they would sit in rows along the fences or on the ridge-poles of barns where they were fed by their parents. They soon became self-supporting, however, joining in large flocks and hawking about over pines in pastures.

On the 28th the migration began, several large flocks passing down the valley, alighting for an hour or more on dead pines and in the top of a large elm in the meadow, then rising high in air, circling once or twice, and pushing on. Sometimes they would circle and return.

The usual call of this swallow is wick, wick & short, sharp, metallic. The bird also has what appears to be a true song. July 13, about sunrise, five alighted on the roof under my windows and began a jingling medley that sounded not unlike that of a flock of Blackbirds. At length all flew except one who continued this warbling for several minutes. His song, for it really was a song - was a long, sweet, varied warble it over with and over again.

They have another curious habit. In the evening twilight - when it is nearly dark - five or six will emerge from the barn and dash excitedly about for several minutes, usually in silence, clustering close together at times and circling near the ground or hovering under the eaves, then returning to their nests.

Hirundo horreorum

1889 Mass.

May 30 Belmont. – Six or eight flying in and out the barn at the cross roads just east of the "Willows". I know of no breeding colony near Cambridge although I have seen a bird or two daily of late, flying over my garden. Distribution

June 14 Cambridge. – Two on telegraph wire in Fresh Pond marshes one, evidently the ♂, twittering. This twitter is evidently a song. The bird while uttering it turned his head from side to side and I could see his throat swell & tremble. The twitter is prolonged, varied, and not unmusical while its general effect is decidedly pleasing. " Song

July 15 Falmouth. – Abundant, the young out sitting in broods on barns, dead trees, telegraph wires, and even fences, the old birds feeding them. To-day during a heavy north easter saw many old birds skimming close to the ground over lawns and along the village streets. Each bird regularly went over the same route many times in succession. Upon reaching the windward end of his beat he would rise, turn and scale back to the leward end before the strong wind. One bird invariably began in a field, crossed it irregularly, passed over the top of a fence, then taking the sidewalk followed it for about 100 yds. then scaled back to the starting point. He skimmed the ground so closely that the tips of his swiftly moving wings seemed to brush the turf. He would pass me within 2 feet when I stood still in the middle of the sidewalk but when I moved would take to the street. His course was usually nearly straight. When feeding in this manner Barn Swallows are invariably nearly silent. Skimming the ground in cloudy weather

Cambridge 130

Aug 7 Two large flocks of T. bicolor sitting on telegraph wires had each a single Barn Swallow. (See also notes on T. bicolor under Aug 8, 9, 1889) In flocks of T. bicolor

I890. Ktama. Hirundo horreorum.

June 28 Martha's V.

The moment my buggy appeared on the plains south of Edgartown Barn Swallows began to collect and to follow it closely. After we had gone a mile there were between 30 and 40. When we stopped at the beach they at once left us. On our return th ey assembled again gradually dropping off gradually as we approached Edgartown but then following us into the village. They kept wholly on our leeward side and when we went before the wind in front of us skimming down wind about 30 yds. then turning and beating back. The attraction was obvious. Our horse and wheels started from the grass that hung over the ruts countless small gray or white moths. About half of these that essayed a long flight were caught by the swallows usually within I5 feet of us. They rarely missed a good chance although most of these were cross shots. They sometimes clicked their bills audibly but usually seized their prey in silence. At times there would be a dozen or more darting in mazy lines about the horse's head presenting a beautiful sight, their steel blue backs glistening in the sunlight, their long forked tails sometimes wide spread, sometimes closed, the deep rufous under-parts showing as they wheeled. My driver told me that nervous horses are sometimes badly frightened by them. The Swallows on Nantucket have a similar habit of following carriages across the open commons. The birds paid no attention to-day to dragon flies.

1890 Mass.

July 19 Martha's Vineyard. During a heavy thunder shower a Barn Swallow took refuge under the gravelly bank of a ditch near me where it was wholly protected from the strong wind and partially from the sheets of heavy rain drops mingled at times with hail stones. As soon as the shower slackened it resumed its flight. Seek shelter during storm

" 20. Crossing the plains in a carriage this afternoon I was surprised to find that some of the numerous Barn Swallows in sight came about the horses after their usual manner here. This was apparently due to the fact that there was not enough wind to carry the moths, which are started from the grass, a sufficient distance to enable them to be easily caught for when a fresh breeze sprang up an hour or two later the birds at once began to collect about us. They did not, however, assemble in nearly as great numbers as in June probably because they were they were obliged to keep rather near their young which were sitting in rows on the telegraph wires. Catching moths started by carriage

On the morning of the 19th I found a nest which the young had evidently just left in a gunning "shanty" on the shore of Great South Pond. It was built on a sloping rafter after the usual fashion. Directly beneath it was a pile of dried excrement which would have filled a pint measure. Does not this indicate that the excrement of the young is not removed by the parents as is the case with Tachycineta? The birds must have entered a hole in this shanty by one or other of the several holes which Flickers had drilled through its walls.

Hirundo erythrogastra

1891 Mass.

May 18 Cambridge -- Saw at least 50 in company with an equal number of Bank Swallows and a few White-bellies skimming close over the water in sheltered coves and pond-holes on the west side of Fresh Pond. The morning was cold with a high N. wind. In the afternoon there were also many Swallows over Glacialis. Can they be migrating at this late date? Certainly no such number of Barn Swallows bred anywhere near Cambridge. I have not seen so many collected here about for twenty years or more.

About Fresh Pond in old-time numbers.

1895

June 17 Great Island, Hyannis. The nest represented by this photograph was built on the top of a blind on the north side of Mr. Coy's house under shelter of the piazza roof and about 8 ft. above the floor of the piazza. The sitting bird is shown in the photograph. She would permit half a dozen of us to walk or stand directly beneath the nest or a child to rock past on a rattling bicycle but she was afraid of my camera & would nearly always fly when I stepped & held it up. I did not investigate the contents of the nest. Mr. Coy's barns are too tight for Swallows to enter.

Massachusetts. Chelidon erythrogastra (No. 1)

1892.

July 9. Concord. Barn Swallows have appeared on the rives with their young since I last went down stream. I counted no less than seven broods today with 3, 3, 3, 3, 4, 4, and 5 young respectively. The young of each brood were perched within a few feet & inches of each other usually on the leafy branch of a maple & willow low over the water but sometimes on a dead branch. The parents (both sexes) were feeding them largely if not wholly with small moths. When the parent bird approached, the latter would open its mouth wide and chatter loudly, at the same time quivering its wings. It usually received the moth in the tip of its bill and swallowed it at once. The parent never seemed to hesitate in its choice of the young bird which it afterwards fed but flew directly to one or other of the fluffy little group. Once I saw an old Swallow feed the same young bird three times in succession although four other young were huddled together not four feet off.

July. 14 Barn Swallows were numerous along the rives today but most of them were flying and I think the young are now getting their own living for I saw only three or four single birds perched. At last this was the case in the morning, but at evening a little before sunset fully thirty were assembled in one tree, a black willow opposite the swimming place. There used to be a roost in this tree years ago (1886-87) and I think the birds which I saw there tonight were

Massachusetts. *Chelidon erythrogastes.* (no. 2.)

1892.

preparing to go to roost, although I was unable to watch them long enough to settle the point.

July 15 The broods of young Barn Swallows have not all broken up or joined other broods for I saw no less than four (broods) along the river this evening, the members of each sitting close together on a willow or maple branch over the water. Perhaps these are broods that have just come from the nest. I saw both parents feed the young of one brood.

Sept. 6. Sometime after sunset in fact it was fast getting dark I heard the twittering of Barn Swallows and looking up saw about 20 of these birds descending nearly vertically with great swiftness from a considerable height. At the broad reach of river opposite my cabin when some thirty feet above the water they checked their speed and glided off down river towards the willows at the bend below where I think they must have a roost. They flew in nearly as compact a flock as do Cedar Birds or Blackbirds.

Chelidon erythrogaster

Concord, Mass.
April, 25. 1893.

Concord, Mass.
May, 13. 1893.

Chelidon erythrogastra.

Concord, Mass.

1893. July 18. (I was returning from the cabin at twilight in my open canoe). Soon after the Red-wings had been driven away from the roost on the Barrett meadow, in fact before they had quite disappeared in the gloom a flock of twenty Barn Swallows came dashing past flying low over the water, doubling and twisting like so many Snipe and making a great outcry as if alarmed or excited. After whirling about for several moments they swept in over the meadow and apparently alighted in the Phalaris at the very spot which the Blackbirds had evacuated. I say apparently because I did not actually see any of the birds alight but merely lost sight of them at this point and failed to see them reappear against the sky or over the water lower down river. On several occasions last year I saw Swallows flying about this Blackbird roost at evening and once or twice was nearly sure that they alighted in the Phalaris although I never could settle the point definitely.

Chelidon erythrogastra.

Concord, Mass.

1893. Aug.5. During most of the afternoon a number of Barn Swallows were flying about over Mr.Keyes's field, coursing close over the stubble like hounds searching for a lost trail. It is one of the prettiest sights which the summer brings-these graceful long-winged, fork-tailed birds skimming swiftly to and fro turning and returning abruptly and seldom leaving the boundaries of the field. It carried my thoughts back to boyhood and to England.

Aug.8. Fully 100 Barn Swallows were flying over the meadows opposite Ball's Hill this forenoon. I reviewed a large portion of the flock without detecting any other species except the Eave Swallow of which I saw a single representation.

Chelidon erythrogas.

1895. Mass.

Aug. 3 Gloucester

Miss Marion B. Keyes tells me that at Eastern Point, Gloucester, Mass. on Aug. 3 she saw a brood of four young Swallows leave the nest which was on a ledge under the roof of a piazza. The old Swallows spent nearly the whole forenoon in persuading them to fly calling to them from the opposite side of the piazza and taking short flights to show them how. By noon all the young had departed. Miss Keyes is sure of this for she stood on a chair and looked into the nest which was positively empty. That evening at sundown all four of the young Swallows returned to the nest, crowded into it and spent the night there. Both of their parents also returned and roosted on the ledge near the nest. Miss Keyes afterwards learned from the friend who owns the house that the young Swallows returned on each of the three following nights making four nights in all. This is the only instance that has ever come to my notice of young birds of any kind returning to their nest.

Chelidon erythrogastra

1896. **Penobscot Bay, Maine.**

Deer Island. June 20♀ 21♀ 22♀ 23♀ 24♀ 25♀ 26♀ 27♂ 28♂ 29♂ 30♂
July 1♂ 2♂ 3♂ 4♂ 5♂ 6♂ 7♂ 8♂ 9♂ 10③ 11 & (along S. shores for 40 or 5 miles) 13⑥ Barn at S. end of town.

Isle au Haut. July 8th

Marshall Island. July 9. Pair with brood of young on wing.

Sedgwick, July 15
Brooksville, " 16
} Abundant in both towns but everywhere outnumbered by the Barn Swallows. The young of both species were out, those of the Barn Swallow ~~sitting~~ perched on bushes & fences along the roadside, those of the Barn Swallow sitting on roofs of barns & houses. They two species did not intermingle except over a large marsh where both were flying about together & with White-bellies also.

Stinson's Neck, Deer Island. Only one pair Breeding in the Swallow's Barn but several pairs in a Barn on an adjoining farm. These birds regularly followed ~~me~~ or rather preceded - as when we were walking in the fields sweeping back & forth a yard or two in advance swooping up small insects disturbed by our feet.

Matinicus Islands June 16-22. Common - fide H. K. Job.

Chelidon erythrogaster.

Peterborough, New Hampshire.

1898. July 5 to Aug.15. Abundant, nearly every suitable barn having its colony of breeding birds. There were eight nests in the barn and one under a shed, on Ben Mere farm. On Aug.5th three of the broods had flown, on the 11th only one brood remained in the nest. Flocking began July 20, old and young birds collecting in long lines on telegraph wires. (July 20(20), 21(30), 24(30), 28(20), 29(30), 30(40), Aug.1(20), 2(24), 3(15), 6(20), 7(30), 8(10)). The song twitter was heard constantly through July and up to Aug.15th.

1899. July & August. A brood of young were fed by their parents on the same branch (a short dead branch of a beech near the house) daily from July 9th to 14th.

Hirundo erythrogaster

1895. Mass.

Aug. 10 Rockport. "I was much amused to see a Barn Swallow harrass a Kingfisher. The latter started to fly across Houghton's Pond (about ½ of a mile) when the former attacked. On the way over the Kingfisher was forced to go entirely under water seven distinct times his tormentor never leaving [him] until the opposite side of the pond was reached. My brother also saw a Barn Swallow attack & drive away a Sharp-shinned Hawk" (J. H. Bowles, letter Oct. 10, 1895) — attacks on Kingfisher

1898

July 2-4 Glendale (in a near), Berkshire Co. Common. [Jouy]

1904

Aug. 1 Concord. — After having been about one of the barns on the Ritchie farm for I know not how many years the Swallows reoccupied it this season entering through a hole which I had had cut over the front door. They appeared about the barn soon after their arrival to the number of five or six but only one pair settled down. They took possession of one of the three remaining old nests, added a bed of fresh mud to the rim, lined it profusely with feathers and reared a brood of young. After the young took wing they with their parents were seen about the barn for a few days after which they all disappeared for a time. Entering the barn on August 1 I was surprised to hear young evidently but just hatched chirping feebly. Presently an old bird appeared & fed the young. A week later (Aug. 8) I could see the heads of the young projecting over the rim of the nest. Exact dates of other observations of this nest are noted in my field bk. I did not know before that the Barn Swallow ever reared two broods in one season but this seems to be an instance of it. — Reoccupying old nest. Rearing two broods in one season

Summer Bds. Restigouche Valley, N. B.
July, '88. J. Brittain and P. Cox, Jr.

Chelidon erythrogaster. BARN SWALLOW.—Rare.

Auk, VI. April, 1889. p.118

Birds of Upper St. John,
Batchelder.

31. **Hirundo erythrogastra** *Bodd.* BARN SWALLOW.—Common.

Bull. N.O.C. 7, April, 1882, p.110

Birds within Ten Miles of Point
de Monts, Can, Comeau & Merriam.

23. **Hirundo erythrogastra horreorum.** BARN SWALLOW.—Rare, and not known to breed. Mr. Comeau shot one May 29, 1882.

Bull. N.O.C. 7, Oct, 1882, p.235

Last Dates Migratory Birds observed by
E. D. Wintle, Fall 1885, Montreal, Can.

Aug. 15. Barn Swallow.

O.&O. XI. Mar. 1886, p. 44.

Dwight, Summer Birds of
Prince Edward Island.

Chelidon erythrogaster. BARN SWALLOW.—Abundant and generally distributed.

Auk X, Jan, 1893. p.12

Ornithological Trip to St. Bruno, P.Q.
May 25, 1885. E. D. Wintle, Montreal.

Barn Swallow, scarce.

O.&O. XI. May. 1886. p. 75

Summer Birds of Bras D'Or Region
Cape Breton Id., N.S. J. Dwight, Jr.

42. *Chelidon erythrogaster.*

Auk, 4, Jan., 1887. p.16

Hopedale, Labrado.

Hirundo erythrogaster. BARN SWALLOW, taken at Hopedale in July, 1908. The only previous record for Labrado, is that the bird "breeds at North-west River at the head of Hamilton Inlet" (*loc. cit.*, p. 403).—CHARLES W. TOWNSEND. M. D., *Boston, Mass.*

Auk 26, Apr-1909, **p. 201.**

Summer Birds of Sudbury, Ont.
A. H. Alberger.

613. Barn Swallow. Common in the village.

O. & O. XV, June, 1890, p.88

Notes from the Magdalen Islands.
Hirundo erythrogaster
H. K. Job. Kent, Conn.
Auk, XVIII, April, 1901, p. 200.

Summer Birds of the Cobalt Mining Region
Nipissing District, Ontario.
by Frederick C. Hubel. Auk, XXIV. Jan. 1907 p. 87,

48. **Hirundo erythrogastra**. BARN SWALLOW.— Common at Haileybury. Breeds.

Birds of Toronto, Canada,
by James H. Fleming.
Part II. Land Birds.
Auk, XXIV, Jan. 1907. p. 82.

227. **Hirundo erythrogastra**. BARN SWALLOW.— Regular summer resident, common April 20 to August 30; earliest record April 8, 1890; breeds (June 25, 1892).

Birds of Dead River Region, Me. F. H. C.

39. *Hirundo erythrogastra*, (Barn Swallow). Noticed at Farmington. It is not to be expected that this species would be very abundant in a thinly populated country.

O. & O. XI. Oct. 1886. p. 146

Summer Residents on Southwest Coast of Maine. T. H. Montgomery, Jr.

613. Barn Swallow. Rather uncommon at Boothbay. Abundant at Camden.

O. and O. 15. Nov. 1890. p. 162

Maine Bird Notes. — The Swallow Roost, of which I gave an account some years ago (Auk, Jan., 1895, p. 48) has moved to another location within two or three years.

I think the first impulse to change was given by the felling of most of the willows which they were wont to frequent. From time to time trees had been cleared away, but this cutting was on more wholesale lines and not to the Swallows' liking. There was, however, sufficient small willow growth farther back on the point for roosting, but they did not take to it, and though the banks are again thick with new growth they have not returned.

The next summer after the cutting of the trees they would collect, yet in smaller and smaller numbers, and go through some of their evolutions, either in memory of old times or from force of habit, and then depart half a mile southeast to the Kennebec River. I have been told by people living close by, that there had been for some time a smaller roost on an island in the Kennebec, seven or eight hundred feet long and covered by a thicket of willows with an occasional elm tree. It was to this roost that the Messalonskee Swallows joined themselves. Here are performed by a countless host similar interesting manœuvres to those before described and by the same kinds of Hirundinidæ.

Abby F. C. Bates. Waterville, Maine.
Auk, XVIII, Oct. 1901, p. 401,

Hirundo horreorum. - Not plentiful. Shelburne, N. H. Aug. 8-29-1865. R. D.

Hirundo horreorum. - Numb. Aug. 20 Rye Beach, N. H. 1867.

Hirundo horreorum. - H.T. Aug. 13, 15 T.T. Rye Beach, N. H. 1868.

Hirundo horreorum. - July 28, a. Aug. 7, a. 23; Numb. Sept. 2 Rye Beach, N. H. 1871.

Hirundo horreorum. - July Rye Beach, N. H. 1872.

Rye Beach, N. H. July 23-24 1885.

112. Hirundo horreorum. - Abundant - flocking

Bds. Obs. at Franconia and Bethlehem
N.H. July-August, 1874. J.A. Allen

32. Chelidon erythrogaster. Abundant.

Auk, V. April, 1888. p.154

Birds Obsvd. near Holderness, N.H
June 4-12, '85, and 4-11, '86. W. Faxon.

40. Chelidon erythrogaster. BARN SWALLOW.—Common.

Auk, V. April, 1888. p.150

Bds. Obs. in Franconia, N.H. June 11-21
'86, and June 4-Aug. 1, '87. W. Faxon

47. Chelidon erythrogaster. BARN SWALLOW.—Common.

Auk, V. April, 1888. p.152

Birds Obs. at Bridgewater, N.H.
July 12-Sept. 4, 1883. F.H. Allen

Chelidon erythrogaster.—Common.

Auk, VI. Jan., 1889. p.77

Birds Obs. at Moultonboro, N.H.
July 2.-Aug. 11, 1883. F.H. Allen

Chelidon erythrogaster.—Very common.

Auk, VI. Jan., 1889. p.78

Birds of Hillsboro Co. N.H. June 27, '92
Arthur M. Farmer, Amoskeag, N.H.

Barn Swallow, fairly common.

O. & O Vol. 17, Sept. 1892 p. 136

Breezy Point, Warren, N.H.

Chelidon erythrogastra.

1894.

June 16. 17. 18. 19. 20. 21. 22.

Breezy Point, Warren, N.H.

Chelidon erythrogastra

1895.

May

Summer Bds, Mt. Mansfield, Vt.

49. Chelidon erythrogaster. BARN SWALLOW.—Common in the valley.

by Arthur H. Howell. Auk, XVIII, Oct., 1901, p.343.

E. Mass. 1885. 20 Conv. Colusset Sec. M.S.
61. Hirundo horreorum. — June 16; July 12; 17
Pigeon Cove, Mass. July 29-1885.
7. Hirundo horreorum. — A few migrating
Princeton & Rutland, Mass. Aug. 2-1885
11. Hirundo horreorum. — Common — not Flocking
Princeton & No. Rutland, Mass. June 18 -1886.
17. Hirundo horreorum. About 5

Hirundo horreorum Mass. - near Cambridge.
1886 April 23, 27

Mass. (near Concord).

1887
May 6^{12} - 9^{6} - 10^{4} - 13^{15} - 17^{4} - 21^{2} - 23^{6} - 26^{6} - 28^{30}
June 2^{8} - 4^{20} - 6^{2} - 7^{2} - 12^{2} - 16^{8}
July 4^{8} - 7^{50} - 10^{20} - 15^{30} - 23^{10} - 24^{50} - 26^{20} - 31^{30}
Aug. 1^{30} - 9^{10} - 10^{10} - 13^{100} - 14^{30} - 15^{150} - 17^{100}

Hirundo horreorum # young out.
Mass. (Concord)

Hirundo horreorum.

1887

Aug. 15 About 150 with perhaps 50 Tachycineta bicolor going to roost at dusk in a thicket of black willows & white maples. (See journal of this date for extended notes).

Mass (Winchendon)

1887
June 25^{10} - 26^{10}

Hirundo horreorum.

Mass. (near Cambridge).

1888
APR 25[1]

Hirundo horreorum

Winchendon, Mass. June, 1888.

Hir. hor 12[4] 13[4] 15[6] 16[6] 18[8]

Falmouth, Mass. 1889.

15 Hirundo horreorum July 4[20] 14[50] 21[10] 28[10]

Falmouth, Mass. 1889.

9. Hirundo horreorum Aug. 4[50]

W. Middlesex Co. Mass.
June 25-30, 1889.

Hirundo horreorum

West Townsend, Ashby, Mt. Watatic,--- Common and very generally distributed throughout this region, breeding in every suitable barn. Several were seen skimming about the sum mit of Mt. Watatic.

Chelidon erythrogaster.

1895. Falmouth, Mass.

July 12[2] 14[1] 19[2] 20[3] 23[2] 25[2] 26[1] 29(3) 31[5]

Aug. 3 (5) Flying S.W. at 6 P.M.

July 20 Late this evening, when twilight was fading into night, I was watching the Robin roost in Blackbird Swamp when a Barn Swallow skimmed past me and plunged directly into the cedars. I am confident that it alighted in them as I should have seen it against the sky had it passed over them.

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

Aug. 14; slightly cooler weather. Barn Swallows have begun to flock together,

O. & O. XI. Jan. 1886. p. /

Fall Migration, Bristol County, Mass.
1885. Charles H. Andros.

the Barn Swallow, on the contrary, departed earlier than usual, which goes to show that some birds, though they may be of the same kindred, have more animal heat than their congeners.

O. & O. XI. Jan. 1886. p. /

Birds of Bristol County, Mass.
F. W. Andros.

Chelidon erythrogaster (Bodd.), Barn Swallow. Summer resident, common. Breeds.

O. & O. XII. Sept. 1887 p. 140

Birds Known to Pass Breeding Season
nr. Winchendon, Mass. Wm. Brewster

51. Chelidon erythrogaster.

Auk, V, Oct., 1888. p. 389

Bds. Obs. near Graylock Mt. Berkshire
Co. Mass. June 28-July 16. W. Faxon

42. Chelidon erythrogaster. BARN SWALLOW.—Common. Often seen flying about the summit of Graylock.

Auk, VI. April, 1889. p. 102

Bds. Obs. near Sheffield, Berkshire
Co, Mass. June 17-26, '88. W. Faxon

47. Chelidon erythrogaster. BARN SWALLOW.—Common.

Auk, VI. Jan., 1889. p. 46

Barn Swallows (*Hirundo erythrogastra*). — Within a few yards of the house occupied by Mr. John R. Sandsbury during the time he is caring for the Terns on Muskeget Island, and where I make my headquarters when visiting there, is an old shed or boathouse which has several apertures. This shed has been used as a nesting place for the past six years by apparently the same pair of Barn Swallows. At my request Mr. S. made a few notes on these birds, which arrived this year (1898) on May 29. It is their custom to repair the old nest, they never having built any since the first one. Four young birds were hatched this season. The old birds would occasionally fly into the sitting-room of the house, but were always frightened on getting inside. When I was visiting Muskeget this summer (July 2–5, 1898), I found, in addition to the old pair of birds, still another pair, apparently birds of last year, assisting in feeding the four young ones in the nest. This they continued to do up to July 10, the date on which the young left the nest. On this date they were all flying about together, the young going at intervals to the nest to rest. On July 11, there were only the two original old birds and the four young ones, and they remained around until July 19, the young returning to the nest every night. The young birds were so tame that they would alight on, and even run over Mr. Sandsbury's fingers while he rested his hand upon a beam which was near the nest. They returned occasionally up to August 1, but were not so tame, alighting on top of the shed and on the clothes line near the house. At this latter date the group consisted of the two old birds and the four young. — GEORGE H. MACKAY, *Nantucket, Mass.*

Auk, XVI, April, 1899, p. 184.

Monomoy Island, Mass.

Barn Swallow (*Hirundo erythrogaster*).— On August 16, 1909, an albino male speeimen was shot by Russell Bearse at Chatham, Mass. The bird was taken on the flats off Monomoy Island where Mr. Bearse had gone after shore birds, and where it had been seen previously for several days. It was nearly pure white and the only suggestion of any other eolor was on the inner webs of the middle tail feathers where the white spots ordinarily exist in the normal plumage. These white spots on elose serutiny eould still be seen, showing that the rest of the plumage was not pure white. This speeimen is in the eolleetion of the Boston Soeiety of Natural History.

Auk 27, Apr-1910 p. 219.

Connecticut, June, 1893.

Chalidon erythrogaster

June 4th, Fairfield

6^4 $7^{②}$ 8^3 9^{12} 10^4 11^1 } Saybrook
12^1 13^4 14^8 15^6 16^6 17^3 }
18^6 19^8 20^6

21^4 22^6 23^8 24^{13} 25^6 Andover

By far the commonest of the Swallows at Saybrook, Andover and Bolton Notch. At Saybrook most of our birds were seen flying over the marshes which they frequented at all times of the day in all weathers but chiefly at morning & evening & when the [illegible] was cloudy. One of [illegible] Clark's neighbors took a set of six eggs during [illegible] The usual number is five [illegible] of six are by no means rare.

Birds observed in Naval Hospital Grounds, Brooklyn. G.H. Coues

32. **Hirundo horreorum.** BARN SWALLOW. — Common; breeds.

Bull. N.O.C. 4, Jan., 1879, p.32

Birds of the Adirondack Region.
C.H. Merriam.

50. **Hirundo erythrogaster**, *Boddaert*. BARN SWALLOW. — Common enough everywhere outside the woods.

Bull. N.O.C. 6, Oct, 1881, p.229

Arrivals of Mig'y Birds, Spring-1886,
Central Park, N.Y. City. A.G. Paine, Jr.

April 29, *Chelidon erythrogaster*, (613). Barn Swallow.

O.&O. XI, July. 1886. p.109

Bds. Obs. at Little and Great Gull Islands, N.Y. Aug. '88 E.H. Dutcher.

17. Chelidon erythrogaster. BARN SWALLOW.—Almost every day while I was at Little Gull Island flocks of these birds could be seen on their southward migration. These birds and those of the succeeding species seemed, in their flight, to follow the line of the islands. from the mainland to Fisher's Island, from Fisher's to Little Gull. Little Gull to Great Gull, Great Gull to Plum, and so to Long Island.

Auk, VI. April, 1889. p. 130

Birds Tioga Co, N.Y. Alden Loring.

154. Barn Swallow. Common; breeds. The nest is placed under the eaves of a barn. It is composed of mud and is lined with feathers or fine straw, and contains four eggs, sometimes five. They are of a creamy white color spotted with two shades of brown, mostly at the larger end. The measurement is usually .76 by .56. Two broods are sometimes reared in one season.

O. & O. XV. June, 1890, p.82

Notes on the Spring Migration of Birds in the Northern Adirondacks [Lyon's], New York [1901].
April 25 to 30.
Barn Swallow. Tolerably common.

E.A. Sterling, Brooklyn, Pa.
Auk, XIX, July, 1902, p.298.

Birds at Fort Klamath, Oregon.
[illegible]

16. **Hirundo erythrogastra horreorum**, *Barton*. BARN SWALLOW. — June 15, 1875 (*McElderry*). A summer resident (*Henshaw*).

Bull. N.O.C. 4, July, 1879, p.164

Birds of Washington Co. Oregon.
A. W. Anthony.

88. Hirundo erythrogaster. BARN SWALLOW.—Rather rare; seen for a few days only in spring and fall.

Auk, 3, April, 1886. p.170

Birds of Fort Klamath, Oregon. J.C Merrill. Remarks by Wm. Brewster

Chelidon erythrogaster.—Common.

Auk, V. October, 1888. p.360

DESCRIPTION OF A HYBRID BETWEEN THE BARN AND CLIFF SWALLOWS.

BY EDGAR A. MEARNS.

IN THE 'Bulletin of the Nuttall Ornithological Club,' Vol. III, No. 3, July, 1878, page 135, Doctor Spencer Trotter described a hybrid between *Hirundo erythrogaster* Boddaert and *Petrochelidon lunifrons* (Say). The specimen was taken at Linwood, Delaware County, Pennsylvania, May 22, 1878, by C. D. Wood. "Unfortunately he [Wood] did not carefully determine its sex by dissection, though he believed it to have been a male."

On June 14, 1893, at Fort Hancock, El Paso County, Texas, I found a pair of swallows which were mated, and had almost completed a nest attached to a rafter of an old building, in a situation too difficult for me to reach. As I recall it, the nest was similar to that of the Barn Swallow, having the entrance at the top. Both birds were shot. The male (No. 134,420, U. S. National Museum) was a typical Barn Swallow; but the female (No. 134,421, U. S. National Museum), which was about to lay eggs, was a hybrid between *Hirundo erythrogaster* and *Petrochelidon lunifrons*.[1] It may be described as follows: Length, 149 mm.; alar expanse, 296; wing, 107; tail, 59; culmen (chord), 8; tarsus, 12; middle toe with claw, 15.8.[2] The characters are, in general, intermediate between those of the two genera — *Hirundo* and *Petrochelidon* — and species. As regards the form of the bill and the form and

[1] The resident Cliff Swallow of the Rio Grande Valley is *Petrochelidon lunifrons*, not *P. melanogaster*, which latter occurs on the Mexican boundary line to the westward, from the San Luis Mountains to Nogales (monuments 65 to 122 of the latest survey). See Proc. Biol. Soc. Washington, Vol. XIV, September 25, 1901, p. 177.

[2] Its mate, a typical male of *Hirundo erythrogaster*, measures: Length, 169; alar expanse, 308; wing, 114; tail, 82; culmen, 6.9; tarsus, 11; middle toe with claw, 16.2.

An adult female of *Petrochelidon lunifrons* (No. 163,687, U. S. National Museum), taken at Fort Clark, Kinney County, Texas, April 28, 1898, measures: Length, 145; alar expanse, 300; wing, 106; tail, 53; culmen, 7.7; tarsus, 14.5; middle toe with claw, 16.

position of the nostrils this is precisely the case. The wing is but slightly longer than that of the Cliff Swallow. The tail is forked, and of intermediate length. The feet are intermediate, but most resemble those of the Cliff Swallow. The colors of the iris, bill, and feet, were noted at the time of capture as indistinguishable from those of its mate — a Barn Swallow. In coloration, the wings and tail are intermediate between those of the two species, which are brown in the Cliff Swallow and blue in the Barn Swallow. The forehead is ferruginous, as in the Barn Swallow; but the sides of the head and neck, behind the eye, where blue in the Barn Swallow and ferruginous in the Cliff Swallow, are an intimate mixture of the two. On the back, the buffy-white edging of the feathers is apparent, but not so plainly indicated as in the Cliff Swallow (the whole upper surface, except the ferruginous frontal band, is uniform steel-blue in the Barn Swallow). The rump and upper tail-coverts differ from those of either species, although the pattern is that of the Cliff Swallow; the color instead of tawny-ochraceous is cream-buff, lightly and irregularly spotted with blue, the longest coverts being purplish brown. The under parts most closely resemble those of the Barn Swallow; chin and throat hazel, darker than the Barn Swallow and lighter than the Cliff Swallow, from which latter it differs in having the hazel color more extended posteriorly, and in lacking the black pectoral spot. The whole underparts, including the under tail-coverts, are washed with ferruginous, but less strongly so than in the Barn Swallow. The under wing-coverts are intermediate. Two outer rectrices are spotted with grayish white on the inner webs, these being immaculate in the Cliff Swallow, spotted in the Barn Swallow.

Auk, XIX, Jan., 1902, pp. 73, 74

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Albinism and Melanism in North American Birds. Ruthven Deane.

I have seen specimens of *H. horreorum* in pure white dress.

Bull. N.O.C. 1, April, 1876, p. 21

Descriptions of First Plumage of Certain North Am. Bbs. Wm. Brewster.

43. Hirundo horreorum.

First plumage: female. Fork of tail not deep; outer feathers projecting one-half inch beyond the inner ones. Remiges and rectrices brown; upper parts, in general, glossed with dull steel-blue; feathers of rump and upper tail-coverts edged with rusty; frontal band narrowed to a mere line of pale fawn-color. Beneath similar to adult, but everywhere paler. From a specimen in my collection taken at Rye Beach, N. H., August 21, 1872.

Bull. N.O.C. 3, April, 1878. p. 63.

ALBINO BARN SWALLOW. July 2, I had the good luck to shoot an Albino Barn Swallow that was evidently not long out of the nest, but still was in good plumage. It was a creamy white on belly, the back of a lighter shade, and contrary to most Albinos, did not have pink eyes. I need not say I gladly welcomed it to my collection.—*A. J. Johnson, Hydeville, Vt.* O. & O. IX. Aug. 1884. p. 104

Notes on the moulting of Spinus pinus and of Hirundo erythrogaster.
[Reviewed in Auk, Jan. 1901, by Witmer Stone]

Mr. Stone and I do not quite agree about the Barn Swallow (*Hirundo erythrogaster*), for he speaks of an "apparent prenuptial moult," basing his opinion on a bird (Phila. Acad. Nat. Sci. No. 28576, September 1, Pennsylvania), which he considers an adult after the postnuptial moult, and therefore requiring a prenuptial moult to produce the attenuated lateral rectrices of the breeding bird. The specimen in question has been kindly loaned to me, and I am satisfied it is a young bird in fresh juvenal plumage, for the slight forking of the tail and the green tinge of the back with reddish-brown edgings on the rump, nape and wing-coverts are characteristic of a dozen other young birds in my own collection. The green tinge, by the way, is peculiar to the young of all our Swallows, and of other birds with iridescent feathers, like Crows and Blackbirds, in which adults are usually bluer or purpler than young birds. Here is a case where immaturity might be shown by softening the skin and examining the ossification of the skull.

Three other interesting Barn Swallows have been sent to me by Mr. Stone. Two of them have already been noticed in his valuable paper on moult, and I agree with him that two of them (Phila. Acad. Nat, Sci., No. 28574, August 7, Pennsylvania, and No. 28577, September 1, Pennsylvania), are adults just beginning the postnuptial moult, which, doubtless, would have been completed after they had reached winter quarters, or perhaps while on the journey thither. The same sort of feather renewal takes place among some of the Tyrannidæ, Laridæ, Limicolæ and others of strong flight, and the body feathers are very apt to precede in their growth the remiges and rectrices, although in the two specimens cited, the rectrices are already partly renewed. The third specimen (Phila. Acad. Nat. Sci., No. 15661, French Guiana), is unfortunately undated, but it is evidently passing from the juvenal plumage by what must be called a postjuvenal moult. The worn first primary, inner secondaries and a few of the rectrices, together with a green-tinged back, indicate a young bird. The crown now worn brown also indicates juvenal plumage, while new feathers are breaking from their sheaths, both on the head and throat. These birds all bear out my conclusion that adult Swallows moult earlier than young birds which undergo a complete postjuvenal moult, often in midwinter. It is, on the whole, expedient to speak of a postjuvenal moult and not of a prenuptial, even in those species which are late in assuming a first winter dress, which then becomes that of the first summer simply through wear. This sequence of plumages obtains largely both among the North American Hirundinidæ and Tyrannidæ, and I am glad of this opportunity of calling attention to it.

I would also correct here a slip of Mr. Stone's pen at page 118 of his review in 'The Auk,' where he has inadvertently credited the Cross bills with a "prenuptial" moult, meaning of course, the postnuptial.—JONATHAN DWIGHT, JR., *New York City.*

Auk, XVIII, April., 1901, pp. 203-4.

Notes concerning certain birds of Long Island, N.Y.
by William L. Braislin, M.D.

Hirundo erythrogastra. An albino Barn Swallow was shot by the writer at Centre Moriches, L. I., Aug. 19, 1904. Hundreds of this species and *Tachycineta bicolor* were at this season passing westerly on their day-time migration and this white bird was seen approaching over the salt meadows, conspicuous from its color. It was supposed to be an albino before it came to bag but the species was not determined until then. The chin and throat and portions of the remiges margining the usual white spots on the tail are washed with buffy; elsewhere the bird is pure creamy white.

Auk, XXI, Apr., 1905, p. 169.

DESCRIPTION OF A HYBRID (*HIRUNDO HORREORI-LUNIFRONS*) BETWEEN TWO NORTH AMERICAN SWALLOWS.

BY SPENCER TROTTER.

THE bird from which the following description is taken was shot at Linwood, Delaware County, Pa., May 22, 1878, by Mr. C. D. Wood, whose attainments as an ornithological collector are well known. Unfortunately he did not carefully determine its sex by dissection, though he believed it to have been a male. My attention was first called to it by his informing me that he had shot a cross between the Barn and the Cliff Swallow; and from the following description it will be seen that the bird presents the more strongly marked features of both *Hirundo horreorum* and *Petrochelidon lunifrons*. This blended likeness stamps it as a *hybrid* between the two above-mentioned species. The specimen has been examined by several competent ornithologists, who all pronounce its hybrid nature as unquestionable. The bird is remarkable not only as being the result of a *mésalliance* between two different species, but between two different genera, and it curiously combines the characters of both in a most marked degree. I have therefore named the bird *Hirundo horreori-lunifrons*, this name suggesting the nature of the hybrid in question.

Description.— Bill similar to that of the Barn Swallow (*Hirundo erythrogastra* var. *horreorum*), but rather stouter. Nostrils opening laterally, partially overhung by membrane, though not so much so as in the above-named species. Tarsi about as long as middle toe without the claw, feathered at the upper end on the inside. Toes cleft as in *horreorum;* the lateral claws reach to base of middle. Tail forked for about *one fourth* of its length, with white spots on the rectrices, but not so strongly marked as in *horreorum;* and the outer feathers are not lengthened and linear as in that species. The wings, when folded, reach nearly to end of tail. Head and back steel-blue with a chestnut-brown frontlet, as in *horreorum*, the chestnut extending farther back on the head than in that species. Rump reddish-white, the color paler than in the Cliff Swallow (*Petrochelidon lunifrons*). Wings similar to those of *horreorum.* Throat and breast chestnut-brown, with a slight central black patch, as in *lunifrons*, and a pectoral band as in *horreorum.* Sides under the wings and under parts generally of a shade varying between that of *horreorum* and *lunifrons.* Crissum reddish-white, the longer feathers with a slight smoky tinge. Lores dusky; rictus slightly bristled. Cheeks steel-blue, as in *horreorum*, but with a slight tendency to chestnut, as in *lunifrons.* Dimensions (from the dried skin): length, 5.88; wing, 4.63; tail, 2.69.

Bull. N.O.C. 3, July, 1878, p. 135-136.

The Singing of Birds. E. P. Bicknell.

Hirundo erythrogastra. BARN SWALLOW.

An almost universal misconception regards the Swallows as a tribe of songless birds. But the Barn Swallow has as true claims to song as many species of long-established recognition as song-birds. Its song is a low chattering trill, suggestive of that of the Long-billed Marsh Wren, but often terminating with a clear, liquid note with an accent as of interrogation, not unlike one of the notes of the Canary. This song is wholly distinct from the quick, double-syllabled note which so constantly escapes the bird during flight; nor is it, as may be supposed, produced by the commingling of the notes of many individuals in a species highly gregarious. I have heard it repeated many times from single birds, often when they were perched alone on telegraph wires. It is also uttered during flight, and continues into August.

Auk, I, Oct., 1884. p. 325

Shelburne, N. H.

Hirundo horreorum

1884

July

Abundant, breeding in every suitable barn. I have learned something new about them. When the nest is built on a sloping rafter there is almost invariably near it a crescent-shaped parapet built in the usual manner of mud pellets but without either finish or lining. These structures I have always taken to be merely the beginnings of nest abandoned for some reason or other. But to-day (July 21). I discovered that they are regularly occupied by the male while the female is sitting or feeding the young. It would require

BARN SWALLOW, (*Hirundo erythrogastra*). Abundant Summer resident. Arrives from April 25th to May 4th. Breeds, making its nest against rafters in barns and other outbuildings. Among our birds no species occupy a stronger place in my admiration than the Barn Swallow. Long before tastes which developed later had manifested an existence, the "Fork-tailed Swallow" was a well known object to my youthful eye. Later in life as I drove the mowing machine and hay tedder, scores of them were my companions, circling about me hour after hour, catching with an ease and precision that ever called forth my deepest admiration, the countless insects which the machine disturbed from their retreat in the grass. Another feature of this swallow which always pleased me was their promptness in the field upon such occasions. No waiting for them until the work was half completed, they were there at the start be it morning, noon, or evening, and often have they followed me until darkness closed around us. Once I saw a man set his dog upon a neighbor's hens that had gone upon his newly sown grain field. One was soon nearly stripped of her feathers, when almost instantly a colony of Barn Swallows which were repairing their previously occupied nests in an old barn one-fourth of a mile away, appeared on the scene and in a wonderfully short time carried the feathers to their nests.

C. O. Tracy, Taftsville, Vt.

O. & O. X. May. 1885. p. 71

nest of the Barn Swallow
e something of a curiosity.
nd, Virginia, July 7, 1884,
in the settlement. It was
and was thickly lined with
lf inches in diameter and
ggs. The writer is wholly
usual style of architecture
nly no dearth of mud out
pproved type.—HUGH M.
SMITH, *National Museum, Washington, D. C.*

Auk, 3, April, 1886. p. 278.

BARN SWALLOW, (*Hirundo erythrogastra*). Abundant Summer resident. Arrives from April 25th to May 4th. Breeds, making its nest against rafters in barns and other outbuildings. Among our birds no species occupy a stronger place in my admiration than the Barn Swallow. Long before tastes which developed later had manifested an existence, the "Fork-tailed Swallow" was a well known object to my youthful eye. Later in life as I drove the mowing machine and hay tedder, scores of them were my companions, circling about me hour after hour, catching with an [illegible]

not been seen in the return migration at this

Peculiar Nest of Chelidon erythrogaster.—A nest of the Barn Swallow having no mud or dirt in its composition may be something of a curiosity. Such a nest was found by me on Cobb's Island, Virginia, July 7, 1884, under the eaves of the porch of the main house in the settlement. It was rather compactly made up of rootlets and grass, and was thickly lined with downy chicken feathers. It was four and a half inches in diameter and one inch in depth. In it were four newly laid eggs. The writer is wholly at a loss to account for this departure from the usual style of architecture adopted by the Barn Swallow; there was certainly no dearth of mud out of which to construct a nest of the more approved type.—HUGH M. SMITH, *National Museum, Washington, D. C.*

Auk, 3, April, 1886. p. 278.

Auk, XIV, Jan., 1897, pp. 95-6.

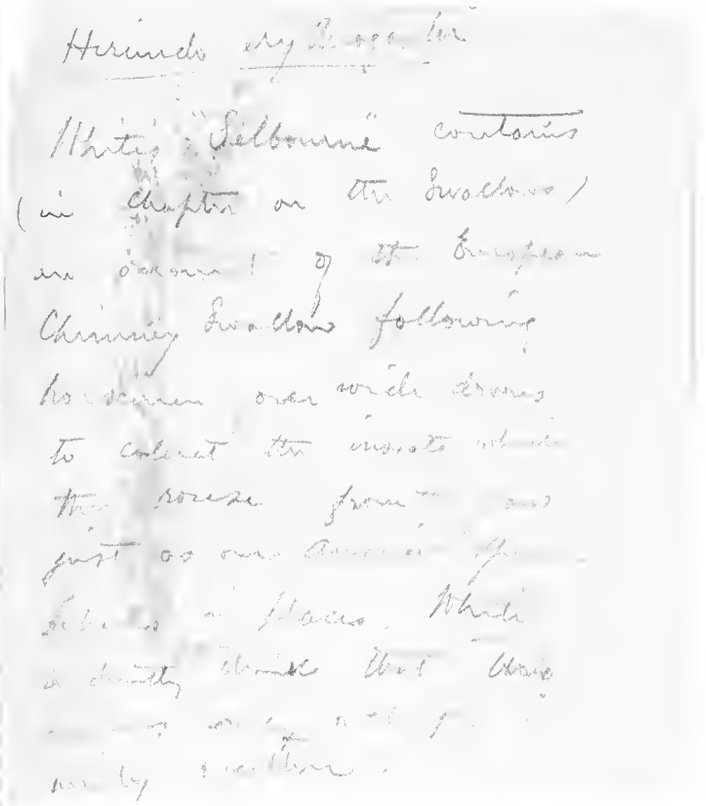
Natural Breeding Haunts of the Barn Swallow (*Chelidon erythrogaster*). — The Barn Swallow is such a familiar tenant of our barns and outhouses that it may not have occurred to many to wonder where they nested before man provided them with such resorts. During the summer of 1895, while visiting the headwaters of Lake Chelan, in Washington, I found the Swallows *at home*. The shores of the lake near its head are very precipitous, since the mountains rise here some 7,000 feet above the surface of the water. Along the shore line, in the side of the cliffs, which continue several hundred feet below the water, the waves have hollowed out crannies and caves. In one of these latter, which penetrated the granite wall to a depth of some twenty feet, I found four or five Barn Swallows' nests, some containing young, and two, although it was so late in the season (July 9, 1895), contained eggs. Others were to be found in neighboring crannies outside the cave. Another visit paid to this spot on August 10 of this year (1896) discovered one nest still occupied, which contained four eggs. Although breeding thus in a perfectly primitive state there was no important difference observed in the birds' methods of construction. The nests were either affixed to the vertical walls of the cavern or else rested slightly on rocky knobs and projections. The feathery linings of the nests consisted of copious collections of the feathers of wild fowl, such as Ducks, Grouse, etc.

The only other place in Okanogan County where I recall having seen Barn Swallows was at Malott, some 60 miles distant, where the birds had adopted the manners of civilization and were breeding in a large barn.— WILLIAM L. DAWSON, *Oberlin, Ohio.*

Auk, XV, April, 1898, p. 193.

Birds Nesting under Arc-light Hoods.

The Friends' Meeting House, corner of South Carolina and Pacific Avenues, has been used as a breeding place by a colony of Barn Swallows (*Chelidon erythrogastra*) for a number of years, building their nests on top of the caps of the pilasters around the outside of the building. While watching their movements from the veranda of a cottage on the opposite side of the street, I noticed a Swallow fly out from under an arc-light hood which stood above the sidewalk. From the frequent trips to and fro, the nest I thus discovered no doubt contained young. — J. HARRIS REED, *Beverly, N. J.*



The Migration of the Swallows.—I have noticed for several years that before the young Swallows were capable of enduring a prolonged flight, old and young gathered together in one vast assembly and moved gradually southward, making short stages from farm to farm; at last (in 1884, on August 9), with a favorable north wind and a clear sky, they left the Island in a body, only a few stragglers remaining, just enough to remind us that summer was still with us.—FRANCIS BAIN, *North River, P. E. I.* **Auk, 2, April, 1885. p. 216.**

587. *Swallows in Boston.* By Carl Reddots and Leander Wetherell. *Ibid.*, No. 29, p. 222.—First seen in 1883 about August 4. **Science, Vol. II**

582. [*Absence of*] *Swallows in Boston.* By Carl Reddots. *Ibid.*, No. 26, p. 135. **Science, Vol. II**

A SWALLOW ROOST AT WATERVILLE, MAINE.

BY ABBY F. C. BATES.

NOT FAR from where a small stream, called the Messalonskee, joins the Kennebec River, one may see at evening from the middle of July to about the third week in September, an interesting sight in the bird line.

The willow trees along the banks of this stream, particularly a close row some five or six hundred feet in length, form the roosting place of vast numbers of Swallows. During the forenoon and early afternoon very few Swallows are to be seen in the sky, — indeed they are conspicuous by their absence, — but a little before sunset the birds begin to arrive in the vicinity, flying, sailing, chasing each other around in the upper air, everywhere within eye's reach. From north and south, east and west, in they

I ever saw them perform. Occasionally they drop down into the trees like pieces of paper, but oftener the final alighting is a combined movement, sometimes in the shape of an inverted cone, — usually in a grand sweep after their most elaborate evolution. Frequently they swoop out from the trees company after company, several times before the last settling, their wings not only making a tremendous whirring, but a perceptible movement of the air. Their chattering keeps up from half to three quarters of an hour after they settle in the trees and their dark little bodies against

[1] Just here let me say that having asked six men of reputed good judgment to give their individual ideas of the number of Swallows when this congregating season is at its height, the average of guesses (for such only could they be) brings the number about thirty thousand, the highest guess being one hundred thousand, the lowest, five thousand. Attempts have been made to photograph them, but at the time when they are best massed and sufficiently near for a photograph, the light is so dim that nothing whatever appears on the film.

Swallows going to roost.

Concord, Mass.

1887. I pushed out into midstream and ate my lunch there. The
Aug.15. sun was setting and the scene very peaceful and beautiful. Nearly 200 Swallows (about 150 Barn and 50 White-bellies) passed in the course of fifteen minutes straggling along in the usual manner. I suspected at first that they were migrating as they were flying up river (due South) but a little later when I reached the bend just below Ball's Hill I was surprised to finding them dashing about in a close swarm now high, now just over the meadow grass. I saw at once that they were preparing to go to roost but for nearly twenty minutes they gave no clear indication of the precise spot. During this time they were whirling about in the most erratic manner, rising to a height of 300 or 400 feet, then dashing down close over the river and meadow, at times massed together like a swarm of waders, at others spreading out more like Bobolinks but always flying in a nearly direct course and never inclining from side to side in the usual way. Finally the whole throng dashed into and through a cluster of young white maples and black willows - trees 12 to 15 feet high - on the end of the point around which the river bends. Dozens swished through the leaves but not one, as far as I could see, actu-

Swallows going to roost.

Concord, Mass.

1887. ally settled. About 100 Red-wings had previously gone to
Aug.15. roost in this thicket and the sudden dash of the Swallows
(No.2). threw them into a panic. For a moment the air was black with birds and their wings made a rushing like wind in the tree tops. The Red-wings soon settled again and after a few high evolutions the Swallows made another headlong dash at the thicket. This time perhaps one quarter of them alighted and the remainder soon joined them. For several minutes more they kept up a continual fluttering among the leaves. I could see them against the light in the west and noticed that they perched on the maple leaves bending them down with their weight. A small numbers settled in the willows. They made a curious chattering for awhile like English Sparrows. It was nearly dark before they were all settled and still, and dusky before they alighted at all. After all was quiet I pushed my boat noisily in among the trees and thrashed the branches with the paddle, shouting at the same time but although most of the Red-wings decamped in great alarm only three or four Swallows could be dislodged.

Auk, XV, July, 1898, pp. 271-2.

Notes on Generic Names of Certain Swallows.— In the raid on nomenclature made a few years ago Dr. L. Stejneger seems to have been peculiarly unfortunate. I have not yet trailed him anywhere without finding that either he did not go far enough in the right direction, or else he went in the wrong direction. The A. O. U. is to be commiserated in unwittingly adopting sundry changes Dr. Stejneger proposed and sought to impose on nomenclature. For example, he undertook to upset the established names *Hirundo* and *Cotile* by substituting *Chelidon* for the former, and *Clivicola* for the latter, after Forster, 1817. It appears from Sharpe's introduction to the Monograph of *Hirundinidæ*, p. xxxv, that *Hirundo* Linn. was characterized by Schæffer, Elem. Orn. 1774, with *H. rustica* as type. If Dr. Sharpe's method of determining the type of a genus be not at variance with A. O. U. canons, this operation of Schæffer's throws out Forster's later attempt to transpose *Hirundo* and *Chelidon*, and we may happily revert to the *status quo ante bellum*. Again, Dr. Sharpe, p. xliv, shows that *Riparia* Forster, 1817, has that sort of priority over *Clivicola* Forster, 1817, which results from previous pagination, and I believe we recognize that myth officially; if so, the name of the Bank Swallow becomes the tautonym *Riparia riparia*, or else *R. europæa*, or else *R. cinerea*. It is but justice to Dr. Stejneger to say that he was aware of this (Pr. Nat. Mus. V, 1882, p. 32), only he "preferred to accept the name *Clivicola*," though the reason for his preference is obviously a futile one by our rules. It is also due him to add, that he only "supposed" his generic synonymy of Swallows to be correct (*ibid.* p. 31). But neither supposition nor preference has any place in the A. O. U. Code. I can suppose a good many things that are not canonized in the code, and certainly prefer some things that are not canonized. For example, I "prefer" *Riparia* to *Clivicola*, and I "suppose" Dr. Stejneger wrong about *Hirundo*. The case thus raised by Dr. Sharpe should come up for consideration at the next meeting of the Union.— ELLIOTT COUES, *Washington, D. C.*

Revival of the Sexual Passion in Birds in Autumn. Wm Brewster. Cambridge.
Auk. XV, Apr., 1898, pp. 194-5.
Chelidon erythrogaster
See under Petrochelidon lunifrons.